Exxon and Mobil agree

**WEDNESDAY DECEMBER 2 1998** 

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**Hoechst - Rhône Poulenc Chemistry** of



The cure UK will join but at wrong time **Martin Wolf, Page 16** 

Today's surveys Information Technology India's IT industry Separate sections

WORLD NEWS

#### Britain gives pledge of compensation to **Holocaust victims**

The British government told the temational conference on Holocaust assets in Washington that it would repay hundreds of Holo-caust victims. Their property was confiscated by the UK during the second world war because their countries were held to be allied with the Nazis. Holocaust assets, Page 3

Wider impeachment probe attacked The White House attacked Republican moves to broaden the impeachment inquiry into US president Bill Clinton, dismissing the investigation as increasingly partisan and misguided. US and Canadian news, Page 5

Jiano's state visit backlines China made clear its frustration and anger over Tokyo's conduct during President Jiang Zemin's visit to Japan in a sign that the meeting falled to foster understanding between the two countries. Asia-Pacific news, Page 4

Call for shift in EU spending The European Commission is expected to call on European Union countries to restructure government expenditure in favour of investment. European news, Page 2

Sharif to meet Climton Pakistan prime minister Nawaz Sharif is to meet US president Bill Clinton today in Washington, hoping for US backing to deal with his country's falling foreign exchange reserves and increasing arrears on foreign debts.

US to increase Colombia drugs aid The US reiterated its commitment to step up military aid to Colombia to fight the war against drugs. US and Canadian news. Page 5

Asia-Pacific news, Page 4

Study backs breast implants A court-appointed panel of scientific experts in the US concluded that there was no proven link between silicone breast implants and the diseases reported by an women suing breast implant.... dian news, Page 5

Court to rule on disasters London's High Court will today consider whether employees tainted by corporate disasters can sue their former employers when the stigma stops them get ting a new job. The move follows: the collapse of Bank of Credit and Commerce International.

UK news, Page 8 Asian nations urged to spend Asian governments must increase social spending to avoid exacerbating the social fall-out from the regional financial crisis. the International Labour Organisation warned. Asia-Pacific

IMF accepts Thailand deficit Thailand plans to run a government deficit of 6.5 per cent of gross domestic product next year with the blessing of the international Monetary Fund. Asia-Pacific news, Page 4

news, Page 4

Warning on southern Africa trade US commerce secretary William Daley warned southern Africa that increased foreign investment depended on the abolition of trade barriers within the region and the creation of bigger markets. World trade news, Page 7

18 die in mine gas blast A gas explosion in a coal mine in south-west China killed 38 miners and seriously injured 18.

**BUSINESS NEWS** 

#### France forced to accept merger of: **BAe and Dasa**

The French government has dropped its hostility to a merger between British Aerospace and Germany's DaimlerChrysier Aerospace (Dasa) that would initially exclude Aerospatiale of France. France had been pushing for a trilateral merger as the best way to achieve consolidation of Europe's aircraft and defence industry. Page 18; Paris, Bonn push EU finance deal, Page 2

Four international companies are to pay FFr450m (\$79m) each for 7.5 per cent stakes in Thomson Multimedia, in a deal that will see 30 per cent of the French consumer electronics group's capital transferred to private hands. European companies, Page 24

Degussa, the German metals and chemicals group, reported record earnings for the fourth successive year and said it expected good results in 1999. European companies, Page 24

Coffeng, a market-making company on the Amsterdam bourse, has had its operations suspended and an options dealer arrested. European companies,

Hoechst of Germany and Rhone-Poulenc of France have agreed to merge their pharmaceuticals and agro-chemicals businesses to create the world's biggest life sciences company. Companies and Markets, Page 19; Observer, Page 17; Lex, Page 18; Analysis, Page 24

Nomura International, the Japanese investment bank, is to put most of its UK pubs into a new company that will seek a stock market quote in the next three years. The flotation is expected to value the company at £1bn (\$1.65bn). Companies and Markets, Page 19; New breed of brewers, Page 26

Lossés at the international operations of CNBC, the televi-sion news channel specialising in financial markets, are likely to continue for longer than proj-ected. Companies and Markets.

Ford, the US car and truck maker, said it aimed to corner 10 per cent of car sales in the Asia Pacific region within 10 years by expanding sales in China, Japan, Thailand and India. Asia-Pacific companies, Page 20

Statoil, the Norwegian state oil company, is closer to pulling out of Thailand after selling its offshore Bongkot field interests in a deal understood to be worth several hundred million dollars. Trade, Page 7

Countries that restrict foreign competition on their banking and capital markets are vulnerable to financial instability, according to a study by the World Trade Organisation. Trade, Page 9, Europe Page 7

Telecom Italia has asked its chief executive to complete as soon as possible negotiations over the company's plans to participate in a new digital pay TV system. European companies, Page 24

**World Equity Markets** 

The latest trends and data from more than 50 national markets at a glance

world's biggest merger deal

A wave of consolidation and restructuring looks set to engulf the western world's oil industry as US and European companies vesterday announced separate deals that will intensify competition in a sector besieged by low

In New York, Exxon announced an agreed takeover of Mobil, valued at \$75.3bn based on early afternoon share prices, in the world's biggest merger. The combined entity will be known as Exxon Mobil and will be the world's largest company in revenues terms.

In Europe, Total of France confirmed it is to take over Petro-Fina of Belgium in a deal that will create the world's sixth biggest oil company, and Europe's third biggest, with a market capitalisation of almost \$40bn.

The two moves are the latest response to the twin threats of low crude prices and a downturn in demand, especially in Asia. They follow British Petroleum's takeover last August of Amoco of the US. Analysts said they could trigger further restructuring.

Even if antitrust regulators force some divestments, with a current market capitalisation of saw the deal resulting in 9,000

sharply as stocks grow World oil prices are less than half their level of a year ago as stocks continue to outsing supplies, Benchmark crude fall sharply again in London yesterday, hitting \$10.06 a barrel at one stage, its lowest since 1986. The price has been trading at 12-year-lows since the middle of last week, when Opec postponed a decision on production cuts. In late trading yesterday the

former leader Royal Dutch/ Shell's \$160bn-plus, Exxon Mobil will tower over its competitors. But the companies insisted that regulatory concerns may be overblown. The deal, revealed in the Financial Times last week. will set new standards for an

industry which has been slow to

price was down 14 cents to

\$10.32. Page 30

follow the merger trend. Lee Raymond, Exxon's chairman, who will lead the new company, and Mobil's Lucio Noto, who will be his deputy, said they expected near-term cost-savings of \$2.8bn. Mr Raymond said he

Top 10 global oil companies, sured by 1997 revenues

●Exxon Corp. \$182.4bn\* Proyel Dutch/Shell, \$128.1bn ●BP Amoco pic, \$104bn ◆Total, \$46.6bn\*, to reflect

acquisition of PetroFina ● Texaco, \$45.2bn **● Elf Aquitaine, \$43.6**5n

**#ENI, \$37**bn ● Chevron Corp. \$36.4bn ● Petroleos de Venezuela SA,

\$34.8bn Conoco Inc. \$26.2bn\*, as if soun off from parent DuPont Co.

123,000. The two companies said the link-up would boost their competitiveness and ability to produce superior returns.

"The merger will enhance our ability to be an effective global competitor in a volatile world economy and in an industry that is more and more competitive," the chairmen said in a prepared statement.

The companies will control or supply almost 50,000 service stations between them. Last year they sold almost 9m barrels of petroleum products daily and had interests in 50 refineries. more than \$240bn, compared with jobs lost from a combined total of They earned about \$12bn on

The smaller Total PetroFina deal is significant in that it sug-

gests national sensitivities about the fate of former state oil companies in Europe are receding. Based on Friday's Total share price, its offer valued PetroFina at BFr19,482 per share, valuing the whole group at BFr456bn (\$12.97bn). That was a 36.7 per

cent premium to Friday's closing PetroFina share price of BFr14,250, and above analysts' estimates of a BFr18,000-a-share offer on Monday. The French company's shares

slid FF187, or 12.3 per cent, to FFr618 on the weak Paris market mid suggestions that the group had overpaid.

The combined group, to be called Total Fina, will have 69,100 employees, 14,000 filling stations, reserves of 5.7bn barrels of oil equivalent, and annual sales of Exxon is advised by J.P. Mor-

gan, Mobil by Goldman Sachs. J.P. Morgan and Paribas are advising Petrofina, with CSFB advising Total. Addition reporting by Christopher

Parkes in Los Angeles

Lex, Page 18

### Markets tumble as investors take profits

By Philip Coggan, Markets Editor

European and Asian stock markets tumbled yesterday as worries about the outlook for economic growth combined with the urge to take profits after the breakneck rally seen since early October.

In Europe, the DAX index of leading stocks in Frankfurt fell nearly 5 per cent, and the FTSE 100 index in London suffered its third biggest one-day points fall and fifth biggest percentage decline. In Hong Kong, the Hang Seng index fell 4 per cent to close

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below 10,000. The first economic data of the new month showed that manufacturing industries around the globe continued to be under pressure. Purchasing managers' surveys in five European countries all indicted declining activity in the sector, as did a similar report

in the US. "It has been a bad day for European growth optimists," said lan Harnett, director of European strategy at BT Alex Brown. "What is clear is that the consensus expectation of over 2 per cent GDP growth for Europe in 1999 looks at risk, and even our previous projections of 1.5 to 2 per cent may be too high. The implication is that corporate earnings

disappointments to come. The poor economic news came in the wake of Wall Street's sharp fall on Monday, which saw the Dow Jones Industrial Average drop 216 points on a wave of

numbers have still got further

elling of internet stocks. Wall Street's weakness contin-ued in early trading yesterday. when the Dow briefly fell more than 100 points before recovering to 9128.14, up 11.59, by lunchtime in New York.

By the end of last week, the German and French markets had each risen by a third-from their October lows, while the UK and the US markets had gained between 20 and 25 per cent.

The rally was initially fuelled by interest rate cuts in the US and Europe, but has recently been propelled by the wave of mergers and acquisitions. However, even yesterday's announcement of the Exxon/Mobil and Total/Petrofina deals, failed to improve investors' mood.

London stock exchange, Page 36 World stock markets, Page 40

French premier Lionel Jospin, left, president Jacques Chirac, centre, and German chancellor Gerhard Schröder at the Franco-German summit yesterday

### Majority tax voting idea stirs EU debate

By Peter Norman in Brussels

France and Germany vesterday floated the idea of majority voting in tax policy in the European Union, opening up fresh divisions ahead of the launch of the single corrency.

The implicit threat to overturn the rules of unanimity on tax policy – raised in separate state-ments by Oskar Lafontaine, Germany's finance minister, and countries on a collision course with Britain. Gordon Brown, UK chancellor

ing of EU finance ministers in eralised capital markets. Brussels that majority voting on tax matters would require a change in the EU treaty that itself would require unanimity. "That is simply not there," he said. Britain said it was not isolated on the issue, with Sweden and Luxembourg also opposed to majority voting on tax.

The Ecofin meeting in Brussels umfair practices in business taxation and touched on a commission plan for a 20 per cent withholding tax on savings.

voting during breaks in the meeting, but they stressed that they policy.

However, the apparent co-ordination between French and German positions raised the suspi-

cion that the two ministers were retaliating to Mr Brown's threat last week to use the national veto to block any tax measure hostile to British interests.

Other remarks from Mr Brown and Mr Lafontaine underlined growing differences over EU taxation policy between Britain and the new left-of-centre coalition in Bonn. While Mr Lafontaine repeated Germany's determination to seek progress towards Dominque Strauss-Kahn, his minimum taxation of companies French colleague - put both and savings during Bonn's six month presidency of the EU starting in January, Mr Brown emphasised Britain's commitof the exchequer, said at a meet-ment to economic reform and lib-

Separately, a move by the German government, backed by France and tacitly supported by Britain, to delay the pha of duty free sales for travellers within the EU on July 1 1999 foundered when six member states insisted intra-EU duty free sales should cease as planned.

Ministers did, however, agree considered EU efforts to combat on how the 11-member euro-zone should be represented in international institutions such as the Group of Seven leading industrial countries after the start of the Mr Lafontaine and Mr Strauss- single currency on January 1. in Kahn floated the idea of majority - a setback for the EU commission. which wanted equal status with ministers and the European cenwere expressing personal opin- tral bank, the ministers said the ions" rather than government representative should be the rotating chairman of the euro 11.

> Franco-German summit, Page 2 Editorial comment, Page 17



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WORLD MARKETS

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CONTENTS

World News 2-7 UK News 8,9 Features 12 Comment & Analysis 16,17 Companies & Finance 19-26 World Stock Markets 36-40

By Robert Graham and Raiph Afkins in Potsdam

Germany and France pledged vesterday to push for a deal within the next six months to complete complex negotiations over the future financing of the European

The two governments' ambitious commitment to tackle "Agenda 2000" came at the close of the 72nd Franco-German summit, in the German city of Potsdam, and was intended to reinforce

Despite clear differences on significant issues on EU financing, President Jacques Chirac of France said: Whatever the differences a common approach to the problems and our ultimate Gerhard Schröder, German

chancellor, welcomed France's support for his goal at a special summit in March.

this month and the assumption by Germany's new Social Democratic-led government of the EU presi-dency in the first half of negotiations touch on some of the most sensitive national issues for EU mem-

significant reduction in its Union's budget as part of a tries, particularly Spain, are reform of EU finances. Brus- being asked for a reduction sels in turn is seeking a in the flow of structural The pledge came ahead of shake up of the Common funds to poorer regions -

Agricultural Policy that would involve cutting EU subsidies to farmers and making up the difference from national budgets. France is opposed to such a

At the same time, re-examination of EU budget contributions spotlights the British rebate, negotiated in the 1980s by Margaret Thatcher, The Mediterranean coun-

which they are resisting. Both sides at the summit, by the end of Germany's presidency, "Perhaps it is an prealistic goal to achieve by March [for the special summit] - but you have to

der's aides added. The impact of having left wing administrations in both

general population because

he won election on a

platform of cutting rather

resolved," one of Mr Schrö-

But there were clear tensions over Germany's plans from nuclear power as an energy source, and over comments by Josepha Fischer, the German Green foreign minister, urging Nato to renounce the first use of nuclear weapons. The two countries are setting up a joint working group to resolve what Mr Chirac described as "technical" problems on nuclear energy.

The French minister noted

taxation as a percentage of

GDP was lower in France

and Germany than other EU

But the calm was illusory.

Underlying divisions sur-

faced in the national press

briefings. While highlighting

Britain's support for the code of conduct against

unfair tax practices and tax

evasion. Mr Brown was ada-

mant that the UK would not

accept a compulsory with-

Although Mr Lafontaine

and Mr Strauss-Kahn were

only expressing personal

opinions about the need for majority voting on tax

that revenue from busine

## cuts euro-zone growth forecast

vesterday warned of a slow-down in economic growth economic activity in some European countries in

Wim Duisenberg, president of the ECB, announced a preliminary growth fore cast for the euro-some of 2.5 warned there was a risk that the rate could fall lower. Speaking at a press confer

ence following a regular meeting of the ECB's governing council. Mr Duisenberg also announced a 4.5 per cent annual growth objective for M3, a measure of broad money and a key policy variable. He said the figure was a reference value, but not a formal target.

Mr Duisenberg said the reference value was based on an assumption that inflation would be 2 per cent or less, economic growth en 2 and 2.5 per cent, and that there would be a technical adjustment accounting for between 0.5 and 1 per cent - for the velocity with which money circulates in the economy.

He said the chosen monetary target was sufficiently flexible to take account of the growing economic risks. "Apart from global developments the most significant risk for all forecasts is that same," he said.

mand could be negatively affected. Cunfidence in the

His comments marked : vious statements. which gave a far more upbent outlook. The ECB had previously forecast a growth rate for 1999 of 3 per cent.

concern about an economic slowdown in Germany and other core European counstatistics office, yesterday tion has remained at a record low during October. unchanged from September.

Mr Duisenberg said economic policy would be conducted "particularly in the dence". He reiterated his call also called on employers and trade unions to maintain wage moderation.

Mr Duisenberg also predicted that the 11 members of the economic and monetary union would eventually harmonise their tax rates. "I expect that something like this will happen over time might not be exactly the

### Tax harmony set to stir passions further which tax rates took effect

By Peter Korman in Brussels

When Oskar Lafontaine, Germany's finance minister, and Gordon Brown, the British chancellor of the exchequer, appeared at separate press briefings in Brussels sterday, they appeared initially to have a shared goal: to calm the furious debate that has gripped the UK on suspected plans for tax harmonisation in the European

remark that he personally ter integration among the believed work on the tax euro countries, leaving dossier would not progress so long as decisions required unanimous votes in the EU council of ministers is sure to fuel suspicions among eurosceptics in Britain that UK sovereignty is under attack from Brussels and Bonn. Later comments by reports of recent days sug-Dominique Strauss Kahn, gesting Britain might have

the French finance minister, that he too believed majority voting was required will add to the impression of a Ger- Germany's centre-lef man-French axis against

Britain's veto.

But even without the two ministers' remarks, the tax issue would be certain to stir nassions for months if not years to come. Its present prominence symbolises how launched in 11 member states on January 1 - is However, Mr Lafontaine's increasing pressure for fas-

Britain behind. Compared with such considerations, the actual debate on tax policy in yesterday's ecofin council was determinedly low key.

The discussions never reflected more alarmist Germany rules out increase in value added tax

Chancellor Gerhard

party had embarrassed

government yesterday declared an end to a damaging internal dispute about tax rates by ruling out value added tax, writes Tony Barber in Frankfurt.

Several regional barons of the ruling Social Democratic

to raise income and com-

pany tax rates to be in line

with Germany, or that the

value added tax exemptions

for food or childrens'

clothes. Such proposals do

The EU commission's con-

troversial proposals for a 20

per cent withholding tax on

savings were discussed only

not exist at present.

Schröder by calling for a rise in VAT as a way of financing tax cuts for small and medium-sized businesses. At 16 per cent, German VAT is below the European Union average. But Mr

Oskar Lafontaine, finance minister, sought to settle the dispute on Monday when he announced VAT would not Schröder is loath to increase be raised in the next year.

for a procedure to initiate UK treasury. Mr Lafontaine contacts with third counpromote the establishment Debating the EU's code of conduct against unfair practices in business taxation.

the ministers did little more

than take note of an interim

report by Dawn Primarolo,

and Mr Strauss Kahn made companies in the EU. Mr Lafontaine denied Germany was pushing for a floor on business tax rates, pointing out that the discussion also had to focus on taxes bases

issues, their remarks will have served as an alarm call to the British government.

Editorial comment, Page 17

### **EU** closer to Swiss

accord

The European Union yesterday removed the main obstacle to a free trade agreement with Switzerland when transport ministers agreed two innovative deals affecting charges for lorries crossing the Alps.

Neil Kinnock, EU transport commissioner, said the greements would save the EU at least Ecu50m (\$58m) a ear - partly by allowing companies to use shorter routes, through Switzerland.

One of the two agreements will introduce into EU law for the first time the principle that road charges for lor ries can be varied depending on environmental criteria.

"The principle is that the polluter pays," said Mr Kinnock. He hoped member states would introduce similar rules when setting up systems for charging lorries for the use of roads.

Yesterday's accords clear the way for the EU to negotiate with Switzerland a free trade pact under discussion since the Swiss rejected European Economic Area membership in 1992.

The first, reached yesterday morning, is an EU deal with Switzerland allowing increasing numbers of 40tonne trucks to travel through that country until quota curbs are lifted in 2005. At present, Switzerland refuses access to trucks over 28 tonnes

The Swiss agreement will belp tackle growing road congestion in the Alpine area, particularly over the Brenner Pass. The European Commission said air pollution in the Alps would be reduced and EU access to Swiss markets increased.

The second deal contains

rules on lorry charges in the so-called Eurovignette motorway charging system operated by Sweden, Denmark, Belgium, Germany, the Netherlands and Luxembourg, it allows differential charging based on environmental criteria, including pollution factors and weight. The two deals were closely linked and failure to agree them in recent years had held up progress on the Swiss free trade pact, which also covers air transport, agriculture, research, public procurement, mutual recognition of standards and free movement of people.

In the Eurovignette agree ment, annual charges will range from Ecu750 to Ecul,550, with a daily rate of Ecus. The Swiss accord will allow entry of 250,000 40tonne trucks in the year 2000, rising to 400,000 in 2004. Trucks up to 34 tonnes will have unlimited access in

free trade CALL FOR SHIFT IN EXPENDITURE

### EU states urged to favour spending on investment

**NEWS DIGEST** 

The European Commission is today expected to call on European Union countries to restructure government expenditure in favour of investment, especially in infrastructure, rather than current spending

It will warn, however, that the budgetery discipline put in place ahead of economic and monetary union must not be eopardised by any increased emphasis placed on invest-The call for a change in emphasis comes in a communi-

cation from Yves-Thibault de Silguy, monetary affairs commissioner, in agreement with Jacques Santer, Commission president, and Neil Kinnock, transport commissioner. It is expected to be backed by other commissioners. Last month, Mario Monti, single market commissioner.

called for a looser interpretation of the German-inspired stability and growth pact, the cornerstone of the EU com-mitment to enforce fiscal discipline among the 11 members of the single currency zone.

Today's paper says that when the Commission makes ments for the stability pact, it will take the adequacy of public investment into account. It calls for new methods to provide infrastructure through private sector involvement and for the European Investment Bank to develop instruments for sharing risk in infrastructure projects. Michael Smith, Brussels

#### **GREEK PRIVATISATION**

#### **Duty-free sale collapses** Greece's fast-track privatisation programme has suffered a

setback with the collapse of a Dr80bn (\$279m) deal to sell Hellenic Duty-Free (HDF), the state-controlled chain of duty-free shops, to a French-Greek consortium.

The finance ministry yesterday annulled the sale after Sarasco, the French duty-free operator, failed to secure its share of financing to acquire 67 per cent of HDF. The two other consortium partners, Papaellinas and Sarantis, both Greek cosmetics retailers, had already arranged financing

DEKA, the finance ministry company which handles privatisation deals, is expected to start negotiations shortly with other bidders. Kerin Hope, Athens

#### EU EXPANSION

### **Hungary voices entry fears**

Viktor Orban, Hungarian prime minister, yesterday voiced concern that the European Union would raise membership requirements for Hungary and other states. . Mr Orban said Hungary would be ready for EU member-ship in 2002 or 2003. This was the first time he has pub-

licly accepted a possible delay to Hungary's self-appointed deadline for membership on January 1 2002. Mr Orban said "new fears" existed in Hungary, the Czech Republic and Poland about EU requirements. In

particular. Mr Orban said the EU appeared unwilling to extend free movement of labour to the new member states. Kester Eddy, Budapest

#### PORTUGUESE INTERNET CHARGES

#### Web surfers stage boycott

Web surfers in Portugal organised a 24-hour boycott of the internet yesterday in protest egainst "the excribitant cost of a defective and slow service". The action against the tariffs charged by Portugal Telecom and other providers for accessing the internet was supported by several national organisations, including the Communist party and the CGTP-intersindical, one of the two main trade union federations.

Users were urged not to use the internet and to make only a protest message accessible on their sites. The action follows a similar protest in Spain earlier this year. Portuguese internet users pay the highest tariffs in Europe. according to the organisers of the boycott.

**CAMDESSUS IN RUSSIA** 

## **IMF** focus on budget deficit 'too narrow'

Carlotta Gall in Moseour and Stephen Fidier in Washington

Michel Camdessus, International Monetary Fund managing director, arrived in Moscow yesterday for talks with the Russian government - its largest bor-

: his arrival falled to raise hopes that a way would be found to revive a \$22.6bn IMF programme that collapsed in August.

Mr Camdessus's arrival came in the wake of an IMFsponsored private seminar in Washington, which discussed steps that should be taken to deal with the country's steep economic decline.

"I came to get better acquainted with the prime minister and, I presume, to have an interesting conversation with him," Mr Camdessus said in brief comments to reporters at Moscow's Sheremetyevo air-

Stanley Fischer, the IMF first deputy managing director, described Monday's discussions as "frank and extremely wide-ranging". In a statement he said IMF management and staff found talks ending today, as Russia the exchange of views continues to call for extra "extremely useful in its ongoing effort to develop its budget deficit which one policy advice to the Russian

Other participants at the discussions, some of whom preferred not to be named. said it was not clear whether the Fund could take away from the seminar discussion get would be approved any useful operational guid-before the end of this year.

discussions with Moscow. Peter Reddaway, a profes-

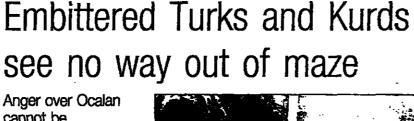
sor of politics at George Washington University, said representatives from the international financial institutions "gave the impression that they did understand better now than before the important role that politics

Some speakers said they believed the IMF's focus on the budget deficit was too narrow, and ways needed to between Turkey and the be found to encourage the economy to grow. But others felt that the budget was indeed the key, and that the government needed to improve tax collection or cut spending or both.

It was acknowledged by some at the meeting that the IMF faced a severe dilemma because of the sheer volume of debt Russia now owed to it. Russia owes some \$19.1bn as at the end of October and without further IMF help its already severe debt problems are likely to increase fur-

Mr Camdessus is scheduled to meet Yevgeny Primakov, the prime minister, and other officials in a series of assistance to help close a government official estimated could reach Rbs100bn

(\$5.6bn). Oleg Sysuyev, President Boris Yeltsin's deputy chief of staff, said yesterday that it was unlikely the 1998 bud-



Anger over Ocalan cannot be underestimated.

writes Leyla Boulton lmost every mother in ⚠ Turkey has at some time held her breath

while watching the evening

news, for that is when the names of the country's latest 'martvrs" are listed. This is the Turkish term for the thousands of soldiers killed in an atrocity-ridden 15-year war between the conscript army and the Kurdisi PKK guerrilla group, whose leader, Abdullah Ocalan, is the focus of a bitter dispute

European Union. east of the country over the Kurdish struggle for autonomy has claimed about 40,000 lives and destroyed dozens of villages. It has also added more than \$7bn a year to an already high budget deficit, fuelled chronically high inflation and blotted Turkey's copybook on human rights, helping block

its bid to join the EU. The fact that Mr Ocalan is held responsible by most Turks for the war means that Italy's refusal to extradite him has sparked a wave of national anger. Banners in a recent demonstration in the Turkish capital summed up the feeling. "Damn the PKK. Damn Italy." Mumtaz Soysal, a former foreign minister who writes for Hurriyet, the country's best-selling newspaper, says: "If you ask the man on the street whether he would rather have Apo [the nickname for Turkey's most wanted man! tried in Turkey or have Tur-

The conflict in the south- A protester in Islambul carrying a portrait of Atatiak, founder of modern Turkey, demands the extradition of Abdullah Ocalan

The consensus that the PKK's head should be cut off means, however, that there is virtually no talk among the country's leaders about how to reconcile disgruntled religious culture or differelements among Turkey's 12m-strong Kurdish minority, a fifth of the country's

discussing concessions for

Kurds - to address. But there is nobody to talk to. The leader and several members of the moderate pro-Kurdish People's Democracy party were arrested simply for welcoming Mr for ordinary Turks' suffering Ocalan's forced move from his guerrilla camps in Syria to Italy as an "historic"

votes in 23 south-eastern constituencies, even though it failed to cross a 10 per cent national hurdle for entering parliament, the party sees itself as the natural interlocutor for the gov-

What makes matters worse is the fact that there has been no permanent gov-ernment in place in Ankara since the collapse last weeek of the coalition headed by focused on a "military solution" to the Kurdish problem, an even bigger say. Turkey's constitution forbids political parties from

arguing that Turkey even has "any minorities based on differences of national or ences of sect, race or language". This has prevented any moves to allow Kurds to arn to read or write Kurdish or to have Kurdish language media, let alone anything remotely resembling autonomy. Even the PKK has stopped pressing for a separate state, which is supported by only a small minority - 11 per cent according to one recent

study – of Turkey's Kurds. Bahadir Kaleagasi, the representative in Brussels of Tusiad, the Turkish business confederation, says the problem is that no Turkish politician would dare to propose political reforms until "PKK terrorism is out of the picture". He also argues that politicians would find it easier to look for a solution if the outside world were to show more understanding

at the hands of the PKK. Turkey's politicians have been here before. In 1990, Hikmet Cetin, a Kurdish deputy who now serves as speaker of the Turkish parliament, recommended free expression of Kurds' identity, abolition of the area's state of emergency, and an ambitious programme of regional development. in 1993. President Turgut Ozal entertained the possibility of more rights for the Kurds but died the day after Mr Ocalan offered a short-lived ceasefire. In both cases, however, talk of peace was set to be undercut by more nation-

The difference now is that

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first option. So the feeling is armed forces, which have quite strong in Turkey and that's what Europe does not understand."

The Kurds are by no means homogenous: they comprise a disaffected mass in the south-east, refugees in the slums of big cities and well integrated communities in the west of the country who see no difference between themselves and other Turkish citizens. Such diversity might suggest that there would be a range of political options for Ankara - if it were to combine a strategy of pressing for Mr Ocalan's extradition with

opportunity for a solution. The main problem in Turkey is the Kurdish problem." says Osman Ozcelik, the party's vice-chairman, "Without solving it you can't solve the

Having won the most

Mr Ocalan has never been so close to being isolated from the picture - the condition set by Turkey for a solution This gives the powerful to the Kurdish problem.

alistic rivals.

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## Assurance from UK on repayment

By Richard Wolffe and John Authers in Washington

The British government yesterday committed itself to repaying hundreds of Holocaust victims for millions of pounds worth of property confiscated during the second world war.

Lord Janner, the former Labour member of parliament and chairman of the Holocaust Educational Trust, told the international conference on Holocaust assets in Washington that the UK government had for- consensus on victims' assets mally agreed to repay victims fully for assets seized in and unpaid insurance. Britain.

The assets mainly involve victims from Hungary, Romania, Bulgaria and the Czech Republic, whose prop-British government because their countries were held to be allied with the Nazis.

Lord Janner said the British government's attempts in the 1950s to repay Holocaust victims for their confiscated property had been "limited, inadequate and even grossly unfair".

The Holocaust Educational Trust has so far identified around 300 claimants from eastern Europe, Israel and about the past can we gain Argentina who will be peace in the present and

allowed to claim their property with "reasonable proof" of ownership.

The British announcement came on the first full day of the Washington conference, which has drawn delegates from 45 countries to discuss how to resolve the disputed claims of Holocaust survivors over assets seized during the war.

Madeleine Albright, US secretary of state, opened the conference with an emotional plea to delegates to come to an international in particular looted art Citing the memory of her

Czech Jewish grandparents who were murdered in the Holocaust, Ms Albright said: "I think of the blood that is erty was confiscated by the in my family veins. Does it matter what kind of blood it is? It shouldn't... But it mattered to Hitler. And that is why it matters to us all. Because that is why 6m Jews died."

She added: "The struggle to reveal and deal with the full truth surrounding the handling of Holocaust-era assets is wrenching, but also cathartic. Only by knowing and being honest



confidence in the future." The conference heard how the most contentions issues surrounding Holocaust assets - looted Nazi gold and the dormant bank accounts of Holocaust victims - had heen largely settled since last year's initial meeting in

London. The two largest Swiss banks last summer agreed a \$1.25bn settlement with Holocaust survivors and

director of the World Jewish Congress - which led the worldwide campaign over Nazi gold ~ said: "The issue of material restitution has been arrived at with the settlement, and that issue is

Swiss officials appeared relieved that the controversy over Swiss banks had receded and that attention had moved to the actions of

Elan Steinberg, executive several eastern European total to more than \$60m. At the first substantive debate of the day, the gov-ernment of Slovenia pledged

to contribute to an international fund for Holocaust victims, joining 15 other governments which have promised to compensate Jewish groups for looted gold and cash. The Dutch government said it would contribute \$11m to the fund yesterday. other countries, including bringing the fund's nominal

Italy and the UK indicated that they would begin distributing cash from the fund to Jewish groups in the near future.

The World Jewish Congress and the British delegation yesterday called for a continuing "mechanism" and possibly a further international conference - to maintain the impetus on resolving Holocaust victims'

international commissions. artist Egon Schiele have

**LOOTED ART QUANDARY FOR MUSEUMS** 

## US to reveal details of traffickers

The US State Department is preparing to release a list naming more than 2,000 art dealers suspected of trafficking in ari looted by the Nazis, it emerged yesterday as the 44-nation International Conference on Holocaust-Era Assets opened in Washington.

Stuart Eizenstat, the US undersecretary of state who has led the US reaction to the "Nazi gold" affair, said he would be publicising the list, compiled shortly after the war by the OSS, the ClA's predecessor, in an effort to rebuild confidence

in the art market, Research conducted at the time by the OSS suggested that between \$2bn and \$2.5bn at 1945 prices had been stolen - a figure which may have increased tenfold since then given inflation and the volatile state of the art market. A French government report published at the time suggested that about a fifth of the world's art treasures, by market value, had been stolen by the Nazis.

Art will be strongly debated today but there is little sign of agreement on how the issue should be resolved. Far more countries and far more individuals are involved than in the cases of dormant Swiss bank tent, "bending the rules for accounts or unpaid pre-war insurance policies, both of ing some German aristowhich are being settled with the aid of specially formed

Galleries are unclear what policy to take. A pair of paintings by the Austrian Himmler, head of the SS. remained in custody at New to keep some of their stolen York's Museum of Modern assets, according to the Art since the beginning of report, while paintings were the year, following claims by descendants of Holocaust embassy in London, despite

len from their ancestors. Manhattan's district attorney has demanded that the paintings, on loan from Austria, should not leave the US. while the museum has contested the ruling. Several gallery directors and curators are at the conference in Washington.

France is at the centre of the controversy, because it has already publicised details of 2,058 artworks which are known to have been stolen and which are kept in French museums and art galleries.

Elan Steinberg, executive director of the World Jewish Congress, described these paintings as "the last prisoners of war which should now be released". He said some works had even been loaned by French museums to fora stolen work by Utrillo was lent to a gallery in Israel. He added: "The French government, I am sure, would not an enrichment which we denied to the Nazis."

There is also controversy over what proportion of the art works can ultimately be traced to Jewish owners.

The problem is not restricted to France. In Britain, the Holocaust Educational Trust has published a report saying that British policy towards looted art after the war was inconsisthe well-connected, includcrats, while remaining inflexible for some victims, even where hardship and injustice would result".

Heirs of Heinrich were allowed by the British taken from the German victims living locally that suggestions they were sto-



COMPENSATION COMMITTEE BODY WILL REPORT BY THE END OF NEXT YEAR ON THE NATURE AND AMOUNT TO BE AWARDED

## French bankers to support government's plans

By Samer Iskandar in Paris

French bankers have agreed to support new government named after its chairman initiatives to compensate victims of the Nazi occupation during the second world nature and amount of com-

Lionel Jospin, prime minister, announced at the weekend the creation of a body to examine individual

also awarded FFr10m (\$1.7m) to the Mattecli committee, Jean Matteoli, which is to make proposals on the pensation after completing an investigation by the end of next year.

"The banks believe the measures represent a crucial

their original owners or their successors," said the French Bankers' Association (AFB), the industry's trade body. The AFB said the main banks had almost comthem under the government-

and very positive develop- led initiatives, and that they tatives - because responsiment in the process of identi- would "continue to co- bility for dormant accounts is less clear cut. fying stolen or dormant operate fully in order to is shared between the govassets and returning them to uncover all facts and documents relevant to the individual claims process".

The process in France is more complicated than in countries such as Switzerland - where banks have 30 years. However, banks pleted the tasks assigned to already reached an agreement with victims' represen-

ernment and the private sectransferred to statecontrolled institutions when they have been dormant for remain responsible for the ing memorial to Jewish mar-

Furthermore, any new list of dormant assets will have tor. Under French law, bank to be offset against assets accounts are automatically returned as part of a government initiative launched in 1944. Mr Jospin also pledged

FFr50m of public funds for the enlargement of an existthe paintings had been sto-

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## Japan tour leaves sour taste in Beijing

and James Kynge in Beijing

China made clear its day over Tokyo's conduct during President Jiang Zemin's visit to Japan in a sign that the landmark meeting failed to breed trust and understanding between the two Asian giants.

Mr Jiang returned to Beijing on Monday leaving the public in both countries wondering whether bilateral relations might not have been better off without the much-heralded state visit -the first by a Chinese head of state to Japan.

It was had enough that the two leaders refused to sign the bilateral communiqué, supposed to be the highlight

Mr Jiang managed to stir resentment among his bosts by his persistent reference to Japanese atrocities against the Chinese people during the second world war and his insistence on an official apology, while the Chinese were unhappy with the Japanese refusal to apologise unequivocally for its war

A scathing editorial vesterday in the China Daily, an official newspaper, left no



That's enough: China's president Jiang Zemin (right) leaving Japan with his wife after an emotionally gruelling trip

ogised enough for the war in China which, he said, was undertaken by a "small group of militarists".

Unless Japan fully realises its past misdirected path doubt about Beijing's hurt. and sincerely makes Criticism centred especially amends, people of the world, on remarks made during Mr especially former victims. Jiang's visit by Hiromu Non- cannot but eye it with suspi-

cians and rightwing newspapers" kept "raving and blustering so close to our side".

The Japanese foreign ministry said Mr Nonaka had been misquoted. It said he was paraphrasing what Mr Jiang had said - that while aka, the Japanese chief cabi- cion and revulsion," the some people believed Japan net secretary. He was alleged newspaper editorial said. It had apologised enough for warned China could not atrocitles undertaken "by a

"watch, listen and sit while small group of people," Mr United Nations or other old-guard Japanese politi- Jiang himself believed it was necessary to remember those

> Beijing had also hoped before the summit that Japan would at least reiterate the "three Noes", stated by President Bill Clinton in a recent visit. That is a three-part formula against Taiwan independence, the

forums that require statehood, and any recognition of Taipei as a political entity separate from China.

in the event Tokyo "gave less than Clinton on Taiwan," said Gerald Segal, Asia specialist at the International Institute for Strategic Studies in London.

Diplomats suggested the including assistance to chances for a substantive

**NEWS DIGEST** 

JAPANESE CORRUPTION SCANDAL

pered two days before it started when China and Rus-

sia issued a joint declaration

which appeared to undercut previous expressions of sun-

port by Moscow for Japan's

the United Nations security

council. "China is more that

reluctant to let Japan accede to permanent membership of

the Security Council. It

wants to remain the sole

voice in east Asia on the

council." said Jean-Pierre

Cabestan, director of the

French Research Centre on

Contemporary China in

Yet, in spite of the appar

ent lack of results, some believe the visit marks a

turning point in bilateral

relations. "The fact that it

happened was almost enough," said one western

Mr Jiang had earlier post-

poned his scheduled visit to

Tokye - a decision attri-

buted to unhappiness over

Japanese plans to implement

new security guidelines agreed with the US which

could lead to Japanese

involvement in places such

as Taiwan. By reversing that

decision and coming to Japan, Mr Jiang ensured the

two countries remain

engaged. For that, China will

receive Y390bn (\$3.2bn) in

loans in the next two fiscal

years. A series of co-opera-

tive deals were also signed,

rethink

for Asia

Asian governments must

rethink policy and increase

social spending to avoid

exacerbating the social fallout from the regional finan-

cial crisis, the International

Labour Organisation warned

"Just as the Depression in

the 1930s forged a new social

contract in industrialised

countries in the 1980s, so must the current Asia crisis

serve as an impetus to creat-

ing a more socially-oriented

model for development.

said Eddy Lee, a director of

ILO and author of its latest

20 per cent of the Indonesian

population, or around 40m

people, to fall into poverty in

Despite the rising ranks of

mately been failed by it.

urged

By Louise Lucas

yesterday.

diolomat in Tokyo.

Hong Kong.

permanent membership of

### Fuji Heavy chief arrested on bribery allegations

inchet

Isamu Kawai, chairmen of Fuji Heavy Industries, was arrested yesterday on suspicion of bribing a member of parliament in order to win a defence agency contract to develop a military aircraft.

The prosecutor's office also raided the headquarters of Fuji Heavy, maker of Legacy station wagons and a leading supplier to the defence agency. Mr Kawal, who joined Fuji Heavy from Nissan Diesel, where he was formerly presudent, has been a central figure in the Japanese defence

Mr Kawai is accused of instructing a former munaging director at Fuji Heavy, who was arrested earlier this month, to give Yoltro Nakajima, a member of parliament for the ruling Liberal Democratic party, Y5m (\$40,600) in appreciation for his work to ensure Fuji Heavy received part of the defence agency contract to build the amphibious aircraft. Mr Nakajima was parliamentary deputy minister at the defence agency when the bidding process was under way. Michiyo Nakamoto, Tokyo

INDEPENDENT MP QUITS

#### NZ government under pressure

The future of New Zealand's minority government led by Jenny Shipley of the National party looked shukier last night after the surprise resignation of Deborah Morris. an independent member of partiament, over defence spending issues. Her resignation deepens the National party's prohlems in having to rely on independent members for its sin-

Ms Morris resigned just an hour after the government armounced it was going ahead with a controversial plan to lease a squadron of 28 F-16 fighters from the US. Ms Morris had supported the government on important issues. She said she was opposed to further defence spending but that the decision to buy the F-16s was just one of a number of issues that had led to her decision to resign from parliament. The National party had bowed to its cntics in deciding not to buy a third Anzac class ingate from Australia but agreed to boost defence spending and increase the size of the armed forces by 500 personel.
Terry Hall, Wellington

#### Canberra refuses to halt mine

The Australian government yesterday rejected a request by the United Nations World Heritage committee to half construction of a uranium mine in a national park. Canberra said it would compile a "comprehensive rebuttal" of the committee's criticisms of the Jabiluka mine project in the Northern Territory.

week to order suspension of construction on Jabiluka until further environmental assessments could be made. It gave Australia until April to prove the mine did not puse a grave threat to the park, Robert Hill, Australia's environment minister, said the World Heritage report, which claimed the mine would severely endanger the cultural and natural values of Kakadu park, was "biased, unbalanced and lacking in objectivity". Gwen Robinson, Sydney

party. Chinese police have detained two prominent dissidents and three other democracy campaigners, a human rights group and relatives of those taken into custody said yesterday. Police in two cities descended on the homes of Xu Wenli, Qin Yongmin and other members of the China Democracy party on Monday night and took them away. the group said.

#### **NEW JAPANESE CARS**

#### Sales fall 13.8% in November

Sales of new cars in November fell by 13.8 per cent yearon-year to 239,409 units, the Japan Automobile Dealers Association said yesterday. In October, new-car sales fell by 14.0 per cent. Including sales of trucks and buses, total new motor vehicle sales in November tell by 15.9 per cent year-on-year to 326,551 units, it said, after a fall in October of 17.1 per cent.

Sales of imported motor vehicles fell 17.1 per cent year-

## Thailand plans deficit | HK plays down | Policy with nod from IMF

Thailand plans to run a government deficit of 6.5 per cent of gross domestic product next year with the blessgovernment said difficulties in parliament meant it could passing crucial legal reforms within a specified time.

The deficit, set out in the country's latest letter of intent with the IMF and approved by the cabinet yesterday, includes a central 2 per cent deficit incurred by additional spending and are important and need to be s of restructuring the financial system.

spending announced yester- bankruptcy law. day - totalling Bt200bn (\$5.5bn) or 2 per cent of GDP

ing public works and devel- restructuring, and measures

With the planned increase ing of the International Mon- in spending, the economy is included in previous agreeetary Fund. But the expected to grow by 1 per ments, were omitted in the cent next year after contracting at least 7 per cent this the fourth quarter of 1999.

> icit can be quickly scaled back once growth resumes, preserving the medium-term d a waiver by the IMF

opment programmes to help to open up land and corpoalleviate the social impact of rate ownership to foreigners, the country's economic cri- are being delayed by opposisis, especially in rural areas. tion in the Senate. Commitments to pass such reforms. latest accord.

Analysts said the removal year, implying growth of of the legal reform timetable between 3 and 4 per cent by could help the government politically by enabling it to "We are confident this defreject charges that the controversial legislation is being forced on it by the IMF.

"The government will do strength of Thailand's fiscal its best to pass the laws. We government budget deficit position," the letter added. are serious about enacting equal to 3 per cent of GDP, a To gain acceptance of this these laws. We think they state enterprises and local receive another \$480m from passed," said Tarrin Nimgovernments and a 1.5 per its \$17.2bn IMF rescue pack- manahaeminda, finance mincent deficit to help finance age, Thailand must be ister. Banking reform meaboard for missing an October implementing strict provi-Additional government 31 deadline to amend its new sioning requirements and a ling airport fees. pledge to have the six Those amendments, along remaining private sector

## tax cut hopes

By Louise Lucas in Hong Kong

Donald Tsang, Hong Kong's financial secretary, yesterday warned that there would be little opportunity for new spending or for tax cuts in the budget next year. The government, facing a

fiscal deficit of at least HK\$20bn (US\$2.6bn) this year, has come under pressure to offer both. Rising unemployment has intensified calls to increase welfare spending, while some in the business community have argued for tax concessions to enhance competitiveness.

Concerns over competitiveness have grown after earlier this year, Hong Kong Singapore's decision to cut "will not be in the number wages and award corporate one position a year from and property tax rebates. now, unless it sees the error have been trimmed, includ- Feulner, foundation presi-

- will go primarily to financ- dures to help speed debt tal raising plans next month. airline chiefs say. The indus- near term.

try is pushing for a reduction in charges, arguing that the ailing tourism and retail sectors will suffer if Hong Kong loses the edge as an aviation hub.

The Heritage Foundation, the Washington-based rightwing think-tank, has suggested in its annual index of economic freedom that Hong Kong is in danger of losing its status as the world's freest economy - to Singapore. The index is

including trade policy, taxation and monetary policy. stock market intervention

The unemployment toll in dent. The government has Asia had risen faster than Charges at Chek Lap Kok, said it will divest its most analysts predicted. Hong Kong's new airport, HK\$118bn share portfolio but According to the ILO, one in with new foreclosure proce-banks submit realistic capi- rank second only to Japan, is unlikely to do so in the every five formal sector jobs in Indonesia had been wiped out this year. It expected an additional

SHARIF'S WASHINGTON VISIT HEADWAY ON NUCLEAR ISSUES ARE VITAL IN RETURN FOR ECONOMIC SUPPORT

## Pakistan PM faces a determined

By Stephen Figler in Washington and Farhan Bokbari

Nawaz Sharif. the Pakistan US has said it will not stand prime minister, meets Presi- in the way of an economic dent Bill Clinton today in programme with the Interna-Washington, hoping to tional Monetary Fund or secure US backing to deal loans from the World Bank with his country's falling to support it. The main eleforeign exchange reserves and increasing arrears on its foreign debts.

But to do this, Mr Sharif sanctions by authorising fallen sharply to just over response to testing by Pakis- than two weeks of imports, tan's neighbour and rival, and it has accumulated India - must satisfy Mr Clin- almost \$1.4bn in unpaid ton's administration that debts to commercial banks destabilise the region.

The US has already indicated that it will ease some

tan's economic plight, the ments of an IMF programme were agreed with the Fund last week.

The country's foreign imposed.

US officials say that they will be urging the Pakistani

sanctions because of Pakis- leader to take several impor- officials, Pakistan is likely to that a series of domestic contan's response to its security tant steps over its nuclear offer further assurances on troversies have weakened concerns. Because of Pakis- programme. Washington signing the CTBT. Islamahad his position, and made it difhensive Test Ban Treaty.

who in May triggered US exchange reserves have nology. Last, the US is nuclear weapons tests in \$400m, equivalent to less on Pakistan, signalling it Kanju, Pakistan's junior for- meeting, Mr Clinton will be heads on weapons. "This is the area where

the company 389.79 to 10,402.32, within 5.6 per cent tind s

an announcement he made at the United Nations in September with signature and ratification of the Compre-

It is calling on Pakistan to stop production of fissile spread of the nuclear techurging "strategic restraint" wants it to stop missile tests and not place nuclear war- sitting on a nuclearised Albright, US secretary of

State Department official

wants Mr Sharif to follow up is also preparing new draft ficult for him to concede fissile material. US officials say the issue national interests.

of Kashmir - the main flashpoint of the rivalry between India and Pakistan - is expected to be raised in the material, and to commit talks, with the US likely to itself to stop the further urge a "serious dialogue" between the two countries over the issue.

According to Siddique eign minister: "We are now Pakistan's nuclear pro-gramme will not further June, when sanctions were still has to be done," a US

ing the opposition Pakistan According to Pakistani People's party (PPP) warn officials.

laws to prevent the export of ground without facing accusations of a sell-out on vital

> According to Khalid Mehmood, a senior analyst at Islamabad's Institute for Regional Studies, "Pakistan has no choice, no option left. but to sign the CTBT, to overcome its severe economic problems".

At today's White House joined by Madeleine south Asia which has state. Mr Sharif will also increased the sensitivity of meet William Cohen, the defence secretary, and Robert Rubin, treasury secre-Mr Sharif's critics, includ- tary. Talks are also expected with IMF and World Bank

unemployed, only South Korea provided unemployment benefits and these, the ILO said, were modest and only paid for a short duration. Elsewhere, those who helped fuel the Asian economic miracle have ulti-

"The gamble that you could have rapid economic growth and that could take care of social problems has been proven by the dramatic nature of the crisis to have been ill advised," said Mr

> He argued that the creation of unemployment insurance would be both feasible and affordable for Asian governments, requiring a contribution of just 1 to 4 per cent of payroll, or a fraction of GDP \*The Asian Financial Crisis:

The Challenge for Social Pol-

# NATIONAL PARK

The mine is located within the World Heritage-listed Kakadu national park but is not technically part of the park. Mining leases held by Energy Resources of Australia for Jabiluka and the nearby Ranger unanium mine predated the World Heritage listing, officials said.

The committee asked the Australian government this

**DEMOCRACY MOVEMENT** 

#### **Beiling detains top dissidents** In an apparent attempt to crush a budding opposition

The action was one of the harshest since dissidents announced the formation of the would-be opposition group in June to challenge the Communist party's monopalv on power.

LI Peng, the party's legislative chairman, was quoted yesterday as saying western-style democracy was inappropriate for China and opposition groups would not be tolerated. If organisations seek a "multi-party system and try to negate the leadership of the Communist party, then they will not be allowed to exist," he said. AP, Beijing

Toyota Motor's November sales fell by 14.5 per cent year-on-year to 143,424 units; Nissan sales declined by 11.0 per cent year-on-year to 63,268; Honda's sales dropped by 33.7 per cent year-on-year to 32,344; and Mit-subishi sales declined by 15 per cent year to 23,692. Mazda Motor's November vehicle sales rose 9.5 per cent year-on-year to 19,425 units.

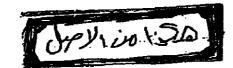
on-year to 22,252 units, the association said. AFX, Tokyo

## Fund raiser.

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FINANCIAL TIMES No FT, no comment.



## berg ro-zone forecas 'not possible'

DAY DECEMBER 260

Althorney And the sole was the sole of the the state of the s Alles to a consular to APPEAR OF THE CONTRACT OF THE SECOND  $(dec. h.s._{s_{\rm total}}) = \frac{a_{\rm p}}{\sin l} \approx$ His are many dament of the sa to to tortals 8 . . . .  $\mathcal{H}^{2k,p-n} \mapsto (\|h^{2k,p}\|_{L^{2}(\Omega)})$ onther of the Salas Commence ١. 106 (1)

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**可料 EXPENDITURE** urged to fav **on** investme

sale collapses

Andrew Parker in London and David White in Madrid

Politicians from the Socialist party of José Miguel Insulza, the Chilean foreign minister, UK home secretary, insisting that General Augusto Pinochet could not be brought to justice in Chile.

Listing a series of judicial and political obstacles which would, they say, have to be removed in order to resolve the issue, the politicians have taken an opposite line to that of Mr Insulza, who is in Europe trying to prevent the former dictator's extradition from the UK to Spain on charges of genocide, terrorism and torture.

tinely take over jurisdiction ernment was under no obli-

A court-appointed panel of

scientific experts yesterday

concluded that there was no

proven link between silicone

breast implants and the dis-

eases reported by women

suing breast implant manu-

Science Panel, which

reported its findings after

dence for two years, is the

most authoritative body yet

to have studied the evidence

Its findings imply that the

manufacturers are without

comes too late to affect set-

tlements already reached by

By Richard Tomkins

in New York

facturers.

in a case in which the milltary are involved), and repeal of an amnesty which pardons all those involved in political crimes committed between 1978 and 1980. .

have written to Jack Straw, ber 11 to decide whether to Mr Straw has until Decem- Straw: to decide on extradition authorise extradition proceedings. Gen Pinochet was arrested on October 16.

Mr Insulza said yesterday his talks in London and Madrid had produced "some positive signs" about a solu-tion to the case. But be refused to say what these were, and made clear he had received "no commitment from anybody".

After meeting his Spenish counterpart, Abel Matutes, he raised the prospect of a trial in Chile if Gen Pino-The Socialists have urged chet's immunity as a mem-a limit to the scope of the ber of the Senate was lifted. military courts (which rou- But he said the Chilean gov-

PANEL INQUIRY STUDY IMPLIES BILLION-DOLLAR LAWSUITS ARE WITHOUT MERIT

- including Dow Corn-

lawyers representing 176,000

The pariel was formed in

October 1996 by Judge Sam

Pointer, the federal judge

presiding over the Dow-

breast implant litigation.

The four-member National available evidence on the

studying the available evi- the diseases reported by

billions of dollars' worth of areas it had studied - immu-

claims against Dow Corning nology, epidemiology, toxi-

and other breast implant cology and rheumatology.

manufacturers are without "The material presented

merit. However, the report represents an analysis of the

Corning case and other

Its task was to review the

possibility of links between

silicone breast implants and

Yesterday it unanimously

reported that it could find no

conclusive evidence of any

such links in the four main

most rigorous and relevant

scientific information cur-

women filing lawsuits.

claimants last month.

Implants 'not linked to illness'

ing's \$3.2bn settlement with line with many other studies



the UK hospital he stayed in while fighting extradition to Spain, for a house in south London, London's Grovelands Priory hospital said it had asked him to leave because he had recovered

from back surgery.
Michael Caplan, Gen Pinochet's lawyer, sald he was "distressed" about the hospital's decision to say publicly it wanted him to leave: "The senator has always been anxious to move from the hospital as soon as possible." An opinion poll in yester-

The panel's finding is in tion

around the world, including

one from a government-ap-

pointed independent review

group in Britain earlier this

year, which have found no

evidence linking breast

Dow Corning called the

report "good news for

women and good news for

Dow Corning, saying

women had yet to vote on its

But those involved in the

breast implant litigation said

the report proved nothing.

Diana Zuckerman, a board

member of the National

Women's Health Network,

said: "It is very careful not

to say that breast implants

Ms Zuckerman said the

report covered only the dis- outs of billions of dollars to

eases most frequently figur- settle claims based on flawed

get a clean bill of health."

offer of a \$3.2bn settlement.

implants with disease.



day's London Evening Stan-Gen Pinochet was last dard found that \$1 per cent night reported to have left of those questioned wanted Gen Pinochet to be extradited to Spain. Only \$2 per cent want him to be allowed to return to Chile.

Madeleine Albright, US secretary of state, said this week that consideration should be given to Chile's fledging democracy. Despite this, the UK government insisted Mrs Albright had not asked for Gen Pinochet to be allowed to return to Chile during a telephone conversation with Robin Cook, UK foreign secretary,

responses and connective tis-

sue diseases - ignoring the

many other diseases of con-

cern to women with

In addition, Ms Zuckerman

said, the report was not new

research, but a review of

existing research, so its find-

Even so, the report is

likely to prove influential in

any further breast implant

litigation because its find-

ings can be used in courts

across the US. The panel's

members are due to give vid-

ectaped, sworn statements

that can be used in evidence.

add to the controversy over

the use of so-called junk sci-

ence in US court cases.

which has resulted in pay-

The report is also likely to

ings were not a surprise.

implants.

## Quebec voters plump for more of the same

The provincial election in Quebec on Monday had been billed as an historic battle that would go a long way to resolving the lingering question of Quebec's place in Canada.

But after all the sound and fury, it resolved nothing, which appears to be exactly what Quebec voters wanted. It opens the door to the one choice, the only choice, almost all Quebeckers can agree on: a permanent campaign to extract from Ottawa ever more powers for the Quebec government by holding out the ultimate threat

of separation. Premier Lucien Bouchard. who heads the separatist Parti Québécois, was returned with a safe majority, winning 75 of the 125 seats in the provincial legislature. But the PQ lost two percentage points in the popular vote from its 1994 victory, finishing with just 43 per cent support.

Jean Charest, former federal Conservative leader who had been touted as the last. best hope for a pro-Canada government in Quebec, did little better than his predecessor Daniel Johnson.

After enjoying a big lead over Mr Bouchard earlier this year, Mr Charest won only 48 seats, one more than in 1994, and saw the party's popular vote drop pearly one percentage point to 44 per cent. But he avoided the humiliating defeat polls had

predicted. The only obvious winner was third party candidate Mario Dumont, a former Liberal who heads the fiscally conservative Action Democratique. His party jumped from 7 per cent to 12 per cent of the popular vote, though it again won only

The ambiguous outcome leaves Mr Bouchard's next moves very much in doubt. In his acceptance speech, he said, in French, that he had a mandate "to create the

plans to hold another vote on separation from Canada. But, in English, Mr Bouchard said to voters he recognised "the signal you send by choosing candidates who reflect your attachment to Canada".

With some 56 per cent of Quebeckers opposing a switch in sovereignty, and two-thirds saying they do not want another referen dum, it will be difficult for Mr Bouchard to call a vote on separation soon.

That leaves a stalemate. The rest of Canada is unwilling to amend the constitution to give Quebec special powers within the confederation. Quebeckers, while unhappy with the status quo, are unwilling to vote their way out of Canada.

The next act is expected to be negotiations on a so-called "social union". All 10 provinces, Quebec

included, have long been upset by Ottawa's ability to use its spending power to launch its own programmes in areas of provincial juris diction such as health, education and welfare. The provinces have agreed to press Ottawa for a new fund-ing formula allowing them to opt out of federal programmes with financial compensation in areas under provincial jurisdiction.

After initially refusing to participate in the discussions, Mr Bouchard said in the campaign he would join February deadline for Ottawa to accept the proposal. If Ottawa accepts, Quebec will opt out and gain more powers and more federal tax dollars; if Ottawa refuses, Mr Bouchard can insist sovereignty is the only viable

Mr Charest insists the talks will force the premier to shed the ambiguity that served him well but, with Quebec voters once again boldly asserting their own ambivalence, it is hard to imagine a clear answer

#### **NEWS DIGEST**

IMPEACHMENT HEARINGS

### White House attacks plans to broaden inquiry

The White House yesterday attacked Republican moves to broaden the impeachment inquiry into President Bill Clinton, dismissing the investigation as increasingly partisan and miscuided.

Joe Lockhart, the president's press secretary, said the decision by the House judiciary committee to examine allegations of campaign fundraising abuses in the 1996 election was a desperate fishing expedition by extremist Republicans. However, Republicans insisted the move was ustified. "We have information that we cannot ignore and the committee would be derelict in its duty if it did ignore them," a committee aide said.

The sniping comes as the impeachment issue moves towards a vote this month. Mark Suzman, Washington

**US ECONOMY** 

#### Survey points to recovery

The US manufacturing sector slowed for the sixth straight month in November, but there are signs of a possible improvement in the economy by the middle of next year,

according to two reports issued yesterday.

The National Association of Purchasing Management, which tracks the manufacturing sector through a survey of corporate purchasing executives, said new orders, exports and imports declined at many factories last month.

The trade group's index of economic activity was 48.8 per cent, down 1.5 points from October. A reading under 50 per cent is a sign of contraction in the industrial sector. But The Conference Board, a private research group, reported its index of leading economic indicators rose 0.1 points in October, to 105.6. The gain followed two months of flat results. Agencies, New York and Washington

**CUBAN IDEOLOGY** 

#### Christmas every year

Cuba's ruling Communist party has apparently decided that Santa Claus and the celebration of the birthday of Christ no longer represent a threat to the nation's ideological integrity.

In a statement published yesterday, the party's Politburo confirmed that Christmas was being permanently restored in Cuba after an absence of nearly three decades

The move will make permanent the Christmas Day holiday provisionally granted last year by President Fidel Castro as an "exceptional" one-off goodwill gesture to honour Pope John Paul II, who visited the island in January. But lest the restoration of Christmas give the impression

that it was going soft, the Politburo declared that Cuba's revolution was "indestructible" and would continue to defy all attempts to destroy it. Pascal Fletcher, Havana

#### **On the web** today

 Anti-gun lobby may find it hard to hit target in court US to step up Colombia drugs aid
 Blshop's death leaves Guatemalans thinking there has been a cover-up http://www.FT.com/Americas

# winning conditions for a ref- emerging soon. rently available," it said. ing in breast implant litiga- science. breast implant manufactur-Under the Atlantic is a fibre optic cable that carries over 1 million calls at any one time. Whose cable? Whose do you think



This year, Cable & Wireless' Gemini joint venture laid the final stretch of the newest and most advanced fibre-optic cable under the Atlantic Ocean.

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Segins disposal

asa Asian ass**ets** 

Lanzania calls in says for arbitration in power row

iispute with Independent Power Tanzania Limited (IPTL), a Malaysian-financed ectricity supply company, to international arbitration. Baruany Luhanga, the head of Tanesco, the stateowned electricity supply company, appounced last week that he had referred a dispute over the cost of IPTL's newly-built-100MW thermal power station to the

tional Centre for the Settlement of Disputes. IPTL is claiming that the station cost \$150m to build, and is demanding payments from Tapesco of more than \$4m a month under the terms of a power purchase agreement signed in 1995. Tanesco says similar plants elsewhere cost closer to \$90m, and that the monthly bill should not exceed

Washington-based Interna-

tration marks a watershed in a long-running saga which prompted the World Bank, together with Ocelot Energy of Canada and TransCanada Pipelines, to suspend work on the Songo-Songo natural gas project, one of Tanzania's largest ever for-

eign investments, in mid-Although most of Tanzania's electricity requirement is provided by several giant hydro-electric dams. poor maintenance and bad management has led to very insecure supply over recent years, prompting the government to look for back-up

systems. The \$375m Songo-Songo project involved revitalising gas wells on and near an island off Tanzania's coast. and piping it to an emergency power plant at Ubungo, near Dar-es-Salaam which is currently running on imported liquid fuel.

pany formed to ran the project. Som a month (although the figure has rises over recent months). In mid-1997, however, the

Songo-Songo team learned of IPTL demands from Tanesco for monthly payments, and decided that the government could not afford both projects. It also shelved plans to build a new 30MW generator at Ubungo, for fear of over-As the year went on, evi-

dence mounted that the IPTL project was going to be very expensive by global standards, that not all of its dealings were entirely transparent and that in any case, Tanzania did not need 100MW of new electricity

Under growing pressure. Tanesco served a notice of default to IPTL in April this year, claiming that it had departed from contract specifications, and that it had not used prudent financial judgment

The affair was highly embarrassing for the government which had pinned a great deal on "South-South" co-operation with Malaysia and strongly endorsed the IPTL project.

But the latest move, which will open the minutiae of the deal to international scrutiny, has been welcomed by donors. This is a victory for good governance, and is 'a courageous step by the government," said an IMF offi-

It also makes it increasingly likely that the Songo-Songo project will be restarted, perhaps by the mid dle of next year.

"This gives a clear indica tion that the government is dealing with IPTL in a responsible manner," said Jim McCardle, Songas' man-

"It allows us to reassess the project and see if we can Once in place, Tanesco go ahead. We are hopeful we

## Veteran politician set to head Beirut government

president resterday won solid backing to name veteran politician ad a new rovernment after the resignation of prime minister Rafik al-Hariri, the country's dominant political figure.

Mr Hoss served as prime minister repeatedly during the 1975-90 civil war and enjoys good relations with all Lebanon's political factions. He is expected to

appointed today. On Monday, Mr Hariri informed Gen Emile Laboud. the president, he could not accept nomination to lead his fourth successive government, citing an alleged constitutional breach of principles by the president and 31

As Gen Lahoud consulted members of parliament sit and watch and be very

iri, the financial markets stunned at the decision of Mr Hariri to leave rather than let Gen Lahoud chip away at his powers - waited nervously to see who would be in the next cabinet.

Analysis have commented that the relatively subdued market reaction was an important first test for the post-Hariri Lebanese econ-But others have warned

that a truer test might come only when the new cabinet is named in a few days' time. Abdallah Ghantous owner of the AGG group, franchise holder for a network of companies in Lebanon, Syria,

Jordan, Oman and Gaza,

ranging from fast food to

engineering, said businessmen would wait and see. "As an investor, I have to

Lebanon from moving forward. It all depends now on what kind of cabinet they're Like many other Lebanese. Mr Ghantous said he was

LEBANESE POLITICS FORMER PREMIER AL-HOSS WINS BACKING AFTER HARIRI DECLINES TO SERVE AGAIN I MARKETS WAIT AND SEE

hoping to see a cabinet of new names and technocrats, instead of men tarnished hy allegations of sectarianism, cronyism and corruption. At the same time, investors have generally perceived Mr Hariri, with his

extraordinary range of international contacts, as a guarantor of their success But in Beirut, Hani Husami, general manager of the National Commercial Bank of Saudi Arabia, said

"People are wary. But they haven't panicked and we effect of 'please get me out of from the Gulf States.

that Saudi reaction had been

subdued.

have had a lot of calls but not from people saying se get me out'." Mr Marwan Barakat, head of the economic research unit at Bank Audi, said he

regarded the relatively sta-

ble market as a sign of the

progress made by Lebanon in the years since the civil "A combination of Laboud and Hoss is acceptable today when it would not have been you might have had [former President Elias Hrawi and

Hoss. The personality of the

important to the markets as

it used to be." He accepted that Mr Hariri had inspired international tacts had enabled Lebanon



haven't seen anything to the to draw on vital funding Gen Lahoud: Former prime minister Raffic al-Hariri stood down rather than let the president chip away at his powers

## Use of pension fund puts Palestinian openness in doubt

Judy Dempsey on the way the \$160m assets of the Gaza Pension Fund have been managed since they were handed over by the Israelis

aving transferred more than \$2bn to the West Bank and Gaza since 1993 and this week pledged a further \$3bn over the next five years, donor countries and international organisations have begun to ask uncomfortable questions about the lack of transparency in the Palestinian

Management of the Gaza Pension Fund (GPF) is but

Established to finance the pensions of 6,500 Palestinians from Gaza who, until Israeli Civil Administration Bank), the GPF amassed capital of some \$160m.

In an internal report last year, the International Monetary Fund criticised the authority's lack of a "central record kept on pension rights for employees". It said it had "no audited financial statements" and no "checks and balances to ensure financial integrity of the

funds... Under the terms of the protocol on economic relations (part of the Oslo peace accords) signed in Paris in April 1994 by Israel and the Palestine Liberation Organisation, it was stipulated that the fund, contributed to by Palestinian and Israeli employers, be used only for

In 1996 Israel started transferring the fund in dollars to a US bank in New York under the terms of an agree-1994, had worked for the ment with the Palestinian Authority, which employed Morgan Stanley, the US

the fund. In late 1996 the Authority dismissed Morgan Stanley's services.

Meddein. Palestinian instice minister and chairman of the government-controlled ferring the \$160m. Gaza Insurance and Pension General Corporation, said in an interview recently.

declined to comment. A source close to the bank said of international co-operation, it "disliked certain management aspects of the PA". Yassir Arafat. PA presi-

dent, then wrote to Israel. confirming the break with Morgan Stanley. He also instructed Israel to transfer the remainder of the fund to Credit Suisse, the Swiss bank, in Zurich and appointed Ballista, described by an Israeli government official as an Irish off-shore investment management company. The Irish Securi-

ties Authority said it had no

record of Ballista. Credit Sui- official. The European Comsse would not comment. By early 1997, Mr Meddein

and Mohammad Rashid, also "Morgan Stanley refused known as Khaled Salam, Mr to give us more than 3.5 per Arafat's main economic cent interest," Freih Abu adviser, ended the contract with Ballista. By that time Israel had completed trans-Since then, according to

Palestinian officials, the GPF has been the subject of much Morgan Stanley has in-fighting between Nabil Shaath, Palestinian minister and Mr Rashid, over how to According to Palestinian

officials, about \$8m was transferred to a branch of the Arab Bank, a large Middle Eastern bank, in Gaza. In August of last year Mr Arafat wanted access to the fund to pay the police after Israel temporarily withheld transferring excise tax and other payments owed to the

\$28m," said a Palestinian

mission stepped in, allowing Mr Arafat to draw on a cash facility of Ecu30m (\$34.8m).

Still, about \$28m of the fund found its way to Gaza. "We wanted to invest some of it in projects, such as telecoms," said Mr Meddein. The vice-president and one of the main shareholders of Pales-(Paltel), a publicly listed monopoly licensed by the

Palestinian Authority, is Mr

Rashid. Regarded by many Palestinians as the eminence grise in the Authority, Mr Rashid is also responsible for overseeing the PA-licensed monopolies for fuel, tobacco and cement as well as the controls Sky, an advertising monopoly.

None of the estimated "Arafat needed about are consolidated in the the EU - the PA has yet to finance ministry's annual

promises to the IMF and World Bank, just as no clear picture has emerged of how the Gaza pension fund is

being managed. Mr Rashid was not available for comment in spite of repeated attempts over the past five months.

The way the GPF has been managed may persuade Israel to be more than cautious in how it should transfer hundreds of millions of shekels of pension contributions it has paid into a sensrate fund to Palestinians who have worked in Israel since 1970.

Israeli labour ministry officials said they want to negotiate the transfer. But under accords, it can only do so once the Palestinians establish a relevant pension insurance institution". In annual \$150m revenues spite of repeated requests earned by the monopolies and offers of assistance by

would pay Songas, the comestablish such a fund.

#### HELLENIC TELECOMMUNICATIONS ORGANISATION S.A. (OTE) AND SUBSIDIARIES

**Condensed Consolidated Financial Statements** 

Prepared under U.S. GAAP

as of and for the nine month periods ended September 30, 1998 and 1997 (in millions of Greek Drachmae)

|  |   |   | BALANCE SHEET   |  |   |
|--|---|---|---|--|---|
| lssets -   | 1998  | 1997  | Liabilities and Shareholders' Equity  | <u>1996</u>  | 199   |
| Current Assets   |   | •   | Current Liabilities   |  |   |
| Cash and cash equivalents  | 34,711  | 145,075   | Short - term borrowings   | 5,113  |   |
| accounts receivable (and, related perties  | 278,444   | 206,441   | Current maturities of long-term debt  | 10.333   | 8.35  |
| Naterial and supplies  | 15,620  | 11.522  | Accounts payable (Incl. related parties)  | 107.334  | 47.20   |
| Deferred Income taxes  | 9.585   | 9 175   | Accrued and other liabilities   | 92,844   | 93.91   |
| Other current assets   | 70.552  | 74.925  | income taxes payable  | 23,474   | 39.27   |
| •  | 408.912   | 447.138   |   |  |   |
|  |   |   | Disidends payable   | 2,689  | - S   |
| )ther Assets   | •   | ٠.٠   | • •   | <u> 241,787</u>  | <u>189.1</u> 0  |
| rvestments   | 140,427   | 138,242   |   | . :  |   |
| eferred income taxes   | 35,098  | 42.053  | Long-Term Liabilities   |  |   |
| Other long-term receivables  |   |   | Long-term debt, net of current maturities   |  | 131,67  |
| unes tould-result (Acets/Stries  | 43.892  | <u>33.745</u>   | Reserve for staff retirement indeminities   | 92,681   | 90,2  |
| ·  | 219.417   | 214.040   | Reserve for Youth Account   | 91,854   | 85,09   |
|  | •   |   | Other long-term liabilities   | 10.615   | 6,6   |
| elecommunications property,  |   | ·   | ·   | 336.119  | 313.7   |
| ant and equipment  | 1,415,943   | 1,167,696   | Minority interests  | 15.555   | 18.77   |
| ess Accumulated depreciation   | (471,970)   | (404.608)   |   |  |   |
|  | 943.973   | 763.088   | Shareholders' Equity  |  | • • •   |
|  |   | - 1.  | Share capital   | 970 AAA  | ٠. م  |
| ellular Licence net of amonization   | 13.334  | 13.939  | Paid-In surplus   | 378,040  | 340,28  |
| 化二氯化甲基二氯化甲基  | : .   |   | 4- 4 <b>p</b>   | 238,947  | 239,27  |
| codwill resulting from consolidated  |   |   | Legal reserve   | 48,007   | 367,75  |
| ubsidiaries, net of amortization   | 25.414  | 0   | Retained earnings   | 379,171  | 302,34  |
|  | · <del> </del>  |   | Foreign currency translation  | (24,576)   |   |
|  |   |   |   | <u>1.017.589</u>   | 918.61  |
|  | 4 844 050   | 4 400 005   |   |  |   |
|  | TOTTOO  | 1.438.205   | <u></u> . :   | 1.611.050  | 1.438.20  |
|  |   |   |   |  |   |
|  |   |   |   |  |   |
| CONSOLIDATED STATEMENT   | S OF OPE  | RATIONS   | MOVEMENT IN SHAREHOI  | LDERS' EC  | ZUITY   |
|  |   | 1997  |   |  |   |
|  | - 7998 -  |   |   | 4555   |   |
| perating revenues  | 1998<br>686,754   |   | Sharahaidare' agains leasann 4  | 1996   |   |
| •  | 686,754   | 599,139   | Shareholders' equity, January 1   | 972.938  | 658.24  |
| •  |   |   | Issurance of share capital  | 972.938<br>0   | 658.24<br>23,73   |
| perating expenses  | 686,754   | 599,139   | Issurance of share capital<br>Paid in surplus   | 972.938<br>0<br>0  | 658.24<br>23,73<br>168,49   |
| perating expenses  | 688,754<br>(431,311)  | 599,139<br>(374,236)  | Issurance of share capital  | 972.938<br>0<br>0<br>168,578                                       | 658.24<br>23,73<br>168,49   |
| perating expenses  | 688,754<br>(431,311)  | 599,139<br>(374,236)  | Issurance of share capital Paid in surplus Net Income for the period Foreign currency translation Share issurance expenses                    | 972,938<br>0<br>0<br>168,578<br>(23,928)                           | 658.24<br>23,73<br>168,49<br>147,91                                       |
| perating expenses perating income pancial, net   | 686,754<br>(431,311)<br>255,443   | 599,139<br>(374,236)<br>224,903   | Issurance of share capital Paid in surplus Net Income for the period Foreign currency translation   | 972.938<br>0<br>0<br>168,578                                       | 658.24<br>23,73<br>168,49<br>147,91                                       |
| perating expenses perating income pension income pe | 686,754<br>(431,311)<br>255,443<br>20,044   | 599,139<br>(374,236)<br>224,903<br>8,886  | Issurance of share capital Paid in surplus Net Income for the period Foreign currency translation Share issurance expenses                    | 972,938<br>0<br>0<br>168,578<br>(23,928)<br>(196)                  | 658.24<br>23,73<br>168,49<br>147,91<br>(3,820<br>(75,980                  |
| perating expenses perating income pension income pe | 686,754<br>(431,311)<br>_255,443<br>_20,044<br>_30  | 599,139<br>(374,236)<br>224,903<br>8,886<br>11,000  | Issurance of share capital Paid in surplus Net income for the period Foreign currancy translation Share issurance expenses Dividends declared | 972 938<br>0<br>168,578<br>(23,928)<br>(196)<br>(99,803)<br>44,651 | 658.24<br>23,73<br>168.49<br>147,91<br>(3,824<br>(75,98)<br>_280.37       |
| perating expenses perating income nancial, net in on sale of investment her, net   | 686,754<br>(431,311)<br>255,443<br>20,044<br>30<br>(17,510)                                 | 599,139<br>(374,236)<br>224,903<br>8,886<br>11,000<br>(10,584)  | Issurance of share capital Paid in surplus Net Income for the period Foreign currency translation Share issurance expenses                    | 972.938<br>0<br>0<br>168,578<br>(23,928)<br>(196)<br>(99,803)      | 658.24<br>23,73<br>168.49<br>147,91<br>(3,824<br>(75,98)<br>_280.37       |
| perating expenses perating income perating expenses perating expenses perating expenses perating expenses perating expenses  | 686,754<br>(431,311)<br>255,443<br>20,044<br>30<br>(17,510)                                 | 599,139<br>(374,236)<br>224,903<br>8,886<br>11,000<br>(10,584)  | Issurance of share capital Paid in surplus Net income for the period Foreign currancy translation Share issurance expenses Dividends declared | 972 938<br>0<br>168,578<br>(23,928)<br>(196)<br>(99,803)<br>44,651 | 658.24<br>23,73<br>168.49<br>147,91<br>(3,824<br>(75,98)<br>_280.37       |
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staff retirement and other employee benefits and deferred income taxes.



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the study says.

ble to financial instability, all capital controls, because

analysis of 27 developing oping countries which com-economies, finds that those which have suffered from year's WTO financial ser-

restrictions on trade in eign commercial presenc

Equally important, coun-

tries that liberalised regula-

tions on commercial pres-

ence did not need to remove

foreign institutions' local

affiliates could fund many of

their activities domestically.

vices agreement to the most

liberal policies towards for-

have enjoyed the most stable

foreign direct and portfolio

However, policies that

restricted international com-

petition to the supply of

financial services across bor-

ders increased the risk of

encouraging foreign institu-

investment flows.

The study finds that devel-

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By Guy de Jonquières

researchers.

Countries that severely

restrict foreign competition

in their banking and capital

markets are highly vulnera-

according to a study by

World Trade Organisation

The study, based on an

financial turmoil during the

1990s impose much tighter

financial services than those

The findings challenge

conventional wisdom in

some troubled developing

countries, where recent tur-

bulence has induced caution

towards further financial

services liberalisation and,

in the case of Malaysia, led

to reimposition of capital

countries that have opened

financial services to wide

competition and permit for-

a commercial presence and

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The biggest benefits of lib-

mote competition, efficiency,

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stability has been greatest in abroad.

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long distance calls. viders of nicke telephony services have applied for

Under the open market likely to add hasic telephony guidelines, more than 20 pro-services to its Spanish business early next year. To encourage competition, in January as Spain's second

step in the liberalisation of pendent regulator, which tors will negotiate for the over the next 10 years in dispose of its 30 per cent some 40 telephones per 100 its telecommunications sec will supervise the sector. use of lines owned by Teletor. This came with the British Telecommunica- fonica, the former monopoly start-up of Uni2, a third tions, which already oper- operator. The reduction of fixed-line carrier - con- ates a data transmission up to 30 per cent in existing is 69 per cent owned by begin to offer cellphone ser-

trolled by France Telecom - company in Spain and is a fees came into operation yeswhich will initially operate main backer of Airtel, a sectorday, but Telefonica said it and mobile phone carrier, is would contest this in court. launched by Telecom Italia

order to gain 7.5 per cent of stake in Retevision through the domestic market by 2008. an industrial sale before

The new operator, which France Telecom, was the sole bidder in May for the hopes to enter Spain's celluthird fixed-telephony licence Uni2 will compete with awarded by the government Retevisión, a carrier in the run-up to deregulation. It was beaten by Union. Retevisión in its attempt to

licence, awarded in June.

year-end, and Retevision will vices in January. Uni2 now lar market using new mobile systems that have still to be approved by the European

The Spanish telecom mar-

The government plans to tunities in the EU. There are inhabitants against the European average of over 50 and the number of mobile phone users is forecast to grow from 4m to 10m over the next three years.

Airtel accounts for 30 per cent of domestic cellular business, and Retevision has some 8 per cent of the long



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One day in 1876, a young man named Ericsson

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that become words in a mobile phone pass through

I can build a better one.

equipment from Ericsson.

William Daley, US commerce southern increased foreign investment it becoming ame encumdepended on the abolition of trade barriers within the region and the creation of

continent with US business executives and seeking to revive the administration's policy of promoting trade and investment with Africa. A US official vesterday remained committed to pas- the SADC [Southern African was an obstacle to the free

sage of the Africa Growth and Opportunity Act, aimed at increasing trade between the US and Africa. The legis-Africa that lation died in October when bered with other items. "For Africa to be on a

global stage, it cannot be bigger and more attractive small, disconnected markets. It must be regional mar-Mr Daley is touring the kets," said Mr Daley. "In this part of the continent, companies want to look beyond the 40m people of South Africa," he told a conference organised by the International Herald Tribune. "They want said President Bill Clinton to look to the 150m people of South African protectionism

Development Community] region. So, I believe you need to reduce the trade barriers with your neighbours." Mr Daley noted that intra-African commerce, at 13 per cent of total African trade, remained exceptionally low, and he criticised the slow pace of trade liberalisation following an agreement two years ago to make the 14-

zone by 2004. Businessmen and government officials from Botswana, one of South Africa's neighbours, suggested that

nation SADC a free trade

flow of trade. Don Knauss, president of Coca-Cola Southern Africa, said his company was confident it could double its business in the region by 2003, but he complained about South Africa's costly subsidies for its sugar farmers.

Alec Erwin, South African drugs, trade and industry minister, retorted that his country had the lowest average tariffs in the region and agreed that a more unified regional mar-

Mr Daley did not just regional economic integration. He also said potential

corruption, political instabil ity and lack of intellectual ter was a reminder of protests by the US pharmaceutical industry about South African government purchases of cheap generic

"The fighting in the Congo human and resource potential - sends the picture to the world of the old Africa, not the new Africa," Mr Daley said. "You and I know insist on the need for that business people don't want to buy into the old

ERICSSON 5



want to buy into the old Africa'

financial instability by tions to focus on short-term business, which relied

The study says financial heavily on financing from Based on an analysis of countries' commitments in the financial services agree eign institutions to establish ment, due to take effect next year, the study finds Argentina. Ghana. the Czech Rep ublic, Slovakia, Hungary and Morocco have the policies eralisation came from allow- most likely to favour finaning foreign institutions to cial stability. Developing establish a local commercial countries with policies most presence - rather than just likely to produce financial supply a limited number of volatility included Indonesia, services from abroad - Korea, Poland, Romania Financial services trade, capi tal flows and financial instability. Staff working paper

"If foreign service provid-ERAD 98-12, Economic ers are allowed to supply a Research and Analysis Divi broad range of services, sion, World Trade Organisa rather than only lending and tion, rue de Lousanne 154. deposit taking, they are CH-1211 Geneva 21, Switzer likely to develop bond and land. Tel: (4122) 739 5111. stock markets or, in other words, financial market Editorial Comment. Page 17

because that did most to pro- Brazil and Venezuela.

**NORWEGIAN OIL AND GAS INTERESTS** 

### Statoil begins disposal of stakes in Asian assets

**NEWS DIGEST** 

Statoil, the Norwegian state oil company, is closer to pulling out of Thailand after selling its offshore Bongkot field interests in a deal understood to be worth several hundred million dollars.

The company said yesterday it sold a 10 per cent stake in the 5,000bn cubic feet gas field to its licence partners, Petroleum Authority of Thalland (PTT), the state oil company, Total, the French oil company, and British Gais of the UK. The three partners hold 40 per cent, 30 per cent and 20 per cent respectively. The deal marks the first and largest of three planned

Statoli self-offs in the region to concentrate on other interact national areas. The company's international activities will focus on the 4bn barrel oil fields in Azerbaijan and the deepwater finds in offshore Angola, as well as Vietnam, the UK, the Gulf of Mexico and Brazil, said Johan Nic Vold, executive vice-president of Statoil. Statoil expects to conclude shortly the sale of its 45 per

cent stake in the 500bn cubic feet gas field in offshore Thailand and its 20 per cent share in deepwater exploration blocks in the Andaman Sea, west of Thailand. Unocal Petroleum and Mitsul Oil Exploration own the remaining 55 per cent in the offshore block, while Unocal and Total hold. a 46.7 per cent and 33.3 per cent stake in the Andaman

Statoil also plans by the end of this year to pull out formally from the Namibian shelf, where it holds a share in an exploration licence in south-west Africa. Statoli has drilled three dry wells there, together with Saga Petroleum and Norsk Hydro, the two other Norwegian oil companies. Valeria Skold, Oslo

**SEA TRANSPORT** 

### First containers at Omani port

The southern Ornani port of Raysut, 1,000km south of Muscat, yesterday began commercial operations with the arrival of two container ships owned by Sealand of the US

and Maersk of Denmark. Both companies have a 15 per cent interest in the new port's management company, Salalah Port Services. Between them they operate about a third of the container

The \$260m container terminal expects about 26 ships to fleet in the region. dock there this month and plans to target traffic to the Indian sub-continent, east Africa and the Middle East. Maurice Gent, London

INDIAN TRADE

### High tariffs come under fire

India is at risk of hampering exports and raising domestic prices because of its high import tariffs, which are among the highest in the world, the World Trade Organisation's deputy director-general, Anwarul Hoda, said yesterday. Although he praised the liberalisation of india's trade and industrial policy over the past decade, he said there

was still some distance to go. Mr Hoda compared indian tariff levels for five categories of industrial goods with those of selected developing and inclustrialised countries to paint a picture of tariff protection in India. In industrial products the simple average tariff for India was 35 per cent, almost three times that of Argentina and Brazil, and more than six times that of the European Union and the US. He said the percentage of tariff lines having duties above 35 per cent was almost 40 for India against zero to two for other countries.

The figures used were based on tariffs prevailing before india's 1998-99 budget, which introduced a special extra customs duty of 4 per cent. International Staff



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INDEPENDENCE 'DANGEROUS' IDEAS FOR EMBASSIES SCORNED

## Minister warns of Scottish 'delusions'

By James Buxton in Edinburgh

Anyone who believed side street?" he said. Scotland would benefit by cutting itself out of the UK's diplomatic and trade assistance network was "serideluded". Brian Wilson, the Vienna in response to an trade minister, said last SNP supporter's request for

powerful attack on the Scot- the Irish embassy in the tish National party and its hope for Scottish independence. Mr Wilson, a former minister for Scottish indus- Scottish embassies and busitry, said the UK's trade promotion network was the widest and most effective in

Law Courts Correspondent

Three former directors of the

collapsed Barings Bank are

to be disqualified from act-

ing as company directors

after a High Court judge yes-

terday ruled they displayed

"such a degree of incompe-

tence" they should not be

involved in company man-

Andrew Tuckey, former

deputy chairman, Ronald

Baker and Anthony Gamby

now face a further hearing

to decide the length of their

disqualification. Barings, the

But Alasdair Morgan, SNP information. "The British which I can easily engage in embassy is streets behind same country," he said.

audience in London that work is just plain crazy." ness agencies would be in head-to-head competition tearing that arrangement would be delighted to have North East Scotland Euro- the prospects for hundreds naive avoidance of the reali-assunder in order to have the 50 diplomatic posts flying pean parliament by-election. of thousands of Scottish jobs ties I want to see addressed."

Nick Leeson, a Singapore-

based derivatives trader, ran

cost the bank £927m and

forced its collapse.

Mr Justice Jonathan Par-

ker, the judge, heard disqual-

brought by the UK govern-

ment's Department of Trade

and Industry in May this

year. The three men were

accused by the DTI of "seri-

ous failures of management

in relation to Leeson's activi-

ties, thereby demonstrating

incompetence of such a high

lapsed in February 1995 after qualification order".

up losses that eventually group profits into a bonus

ification applications £1.75m bonus in 1993 and a

satisfaction of opening a the St Andrews cross [the Scottish embassy in a Tokyo Scottish flag] without worrying too much about the implications for Scottish enterprise spokesman, businesses and individuals countered by publishing in the 150 countries in which letters from the British and we would thereby have ously and dangerously Irish Republic embassies in denied ourselves direct rep-

because, frankly, I do not regard it as rational. The idea that Scotland should Mr Wilson told a Scottish cut itself off from this net-Mr Wilson, a Scot, is the latest minister to attack the idea of an independent Scotwith the UK for trade and land. Some Scottish Labour foreign investment. "There MPs have criticised the tac-"What possible benefit are, I suppose, plenty of tic in the wake of Labour's could there be to Scotland in people in Scotland who poor showing in last week's

Former Barings directors to be banned

The judge said that Bar-

ings paid 50 per cent of

pool for directors and senior

employees. Mr Tuckey

received a salary of not less

than £225,000 a year with a

proposed bonus of £1.65m in

1994. Mr Baker, who headed

Mr Leeson's division, earned

£100,000 a year and was paid

a bonus of £900,000 in 1993

with a further £880,000 pro-

1994 bonuses were not paid

posed in 1994. The proposed

because of the collapse.



come to light and the col- for failing to expose the trad-

"Any attempt to discuss seriissues, and the implications for Scotland, is now met with the cat-call that this constitutes 'Natbashing'," he said. "How-

The judge said Mr Tuc-

key's breach of duty

stemmed from a "fundamen-

tal misconception as to the

extent of his management

responsibility". "Had he per-

formed his management

duties properly, Mr Leeson's

unauthorised activities

would almost certainly have

lanse of Barings might have

Mr Baker had shown an

"almost cavalier attitude" to

Mr Leeson's activities and

bore a heavy responsibility

for the Barings collapse, he

said. Again, had he per-

been avoided," he said.

cannot be suppressed by cat-

calls." He said the idea that Scotland could become independent "without enormous implications for business ever, the vital debate about and for jobs is simply a naive avoidance of the reali-

then the trader's activities

would have come to light

and the collapse of the bank

Mr Gamby, head of settle-

ments, displayed a "culpable

inactivity" in allowing Mr

Leeson to run up such debts

and was partially to blame

er's activities, the judge said.

ods of disqualification of up

to 15 years. Other former

Barings directors have

already been disqualified for

periods of up to five years.

The case continues.

The three men face peri-

### Interest rate policy 'takes account of iobs level'

The Bank of England pays close attention to unemployment when setting interest rates, even though it is not an explicit part of its objectives, a senior official from the UK central bank said vesterday.

Mervyn King, deputy governor responsible for monetary stability, said in a speech last night that the monetary policy objectives need not include explicit reference to joblessness. The Trades Union Congress has argued that it should and Oskar Lafontaine, German finance minister, has urged its inclusion for the putative elirozone.

Advocates of an employ ment objective point to the US Federal Reserve, which is charged to pursue "the goals of maximum employment, stable prices and moderate long-term interest rates".

But Mr King argued that the Fed did not in practice behave differently from the UK Bank. "Under Alan Greenspan's leadership, the Federal Open Markets Com-mittee has firmly rejected the notion that by accepting a somewhat higher rate of inflation it is possible to achieve a permanently bigher level of employment, he said

: But the Bank does what it can to minimise undestrable volatility of output and employment, said Mr King. It does so by bringing infla tion back to its target gradually if it strays.

Unemployment is an important input into the Bank's policy-making process but concepts such as the "natural rate of unemployment" and the "nonaccelerating inflation rate of unemployment" (Nairu) are of limited value as practical guides, Mr King said.

The natural rate is the level of unemployment consistent in the long-term with stable inflation. It depends on the structural characteristics of labour and product markets, for example the level of the minimum wage. ment rate at which there is no immediate pressure for a change in the inflation rate. reflecting inertia in the way the economy adjusts.

Mr King said knowledge of the natural rate was not sufficient to predict inflation. Estimates of the Nairu are in turn by-products of the inflation forecasting process. rather than an input into it. Neither can provide a meaningful target. Policymakers should, however, be more concerned by the levels of output and employment than their growth rates. Mr King also rejected

accusations that the Bank had paid too much attention to the now-discredited official estimates of average earnings growth.

He also downplayed the idea that 45 per cent was a "magic threshold" between acceptable and unacceptable rates of earnings growth.

**NEWS DIGEST** 

#### PRIVATISED UTILITIES

### **Biggest water group urges** easing of takeover rules

Britain's biggest water company has asked the government to clear the way for a wave of takeovers in the industry. Bill Alexander, chief executive of Thames Water, says consumers would be better served if the current 10 water and sewerage companies were whittled down to a smaller number of UK-owned businesses. The company is to press John Prescott, deputy prime minister, to consider changes to the industry's regulatory regime to make it easier for UK water companies to take over rivals. Mr Alexander believes the water industry would be more robust - and better equipped to invest in projects worldwide - if it simmed down to a handful of companies.

"We would be happy to work with the government on how legislation might be brought forward," he said. Under the 1991 Water industries Act, all mergers between big water companies are automatically referred to the Monopolies and Mergers Commission, The referral gives overseas companies - notably-from the US and France - the

chance to make a rival bid. Thames has invested in a number of international projects, including schemes in Puerto Rico and China, but is getting restless at its inability to expand at home. Mr Alexander said he hoped Mr Prescott would adopt a "prag-matic" approach which would allow rationalisation in the industry. "We believe the UK would be better served by a possibly smaller number of robust, competitive and UKowned companies, then by 10 vulnerable or actually for-eign-owned companies," he said. George Parker, London

#### IMMIGRATION

#### Controls to be speeded up

Visitors to the UK would experience fewer delays at immigration control under plans from the British Tourist Authority and Immigration Service to co-operate on speeding up the system. The BTA said most visitors were entitled or qualified to be in the country and delays should be kept to a minimum. The memorandum of understanding, jointly published yesterday by the two government agencies, gave no timeframe for implementation but said that increased co-operation would lead to greater efficiency. The UK attracted 25.5m visitors from overseas last year, according to official figures, a 28 per cent increase on 1993. Elizabeth Robinson, London

#### TECHNOLOGY

#### **US group boosts Scotland plant**

SMART Modular Technologies, a designer of memory cards and embedded computers based in Fremont, California, yesterday announced an expansion at its European manufacturing headquarters in East Kilbride, central Scotland. The workforce at the plant, opened two years ago, will increase from 250 to 370 over three years.

#### THE ECONOMY

#### Factories faces 'bloodbath'

The UK manufacturing sector faces "a bloodbath" if current trends continue, according to the latest monthly survey of the industry. Manufacturers reported falls in levels of output, orders and the price of goods they produce, to record lows in November. The Chartered Institute of Purlanagers, which compiled the index of more than 300 manufacturing companies, said the sector contracted at its fastest rate for seven years. "What is really depressing is that domestic demand is so weak," said Pete Thomson, the institute's director. The overall index fell for the eighth consecutive month in November to 41.1 compared with 41.4 in October.

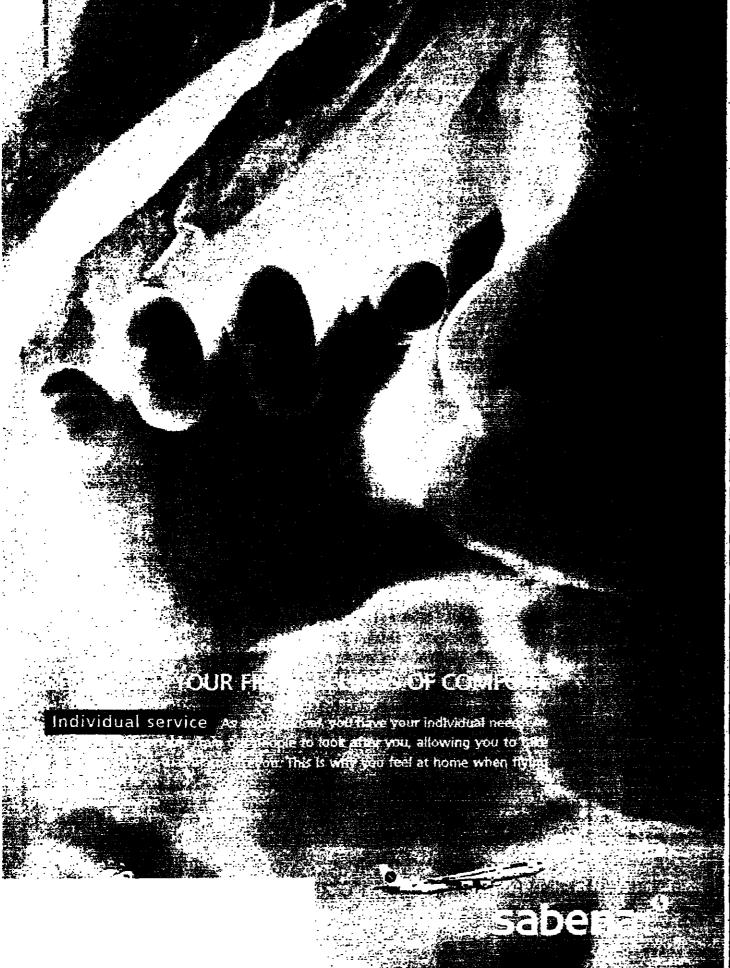
An index reading below 50 implies the sector is shrinking. The reading is the lowest since January 1992, when the survey began. Richard Adams, London

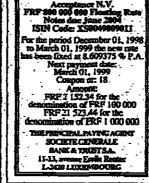
#### **CORPORATE GOVERNANCE**

#### Vote recommendation snubbed

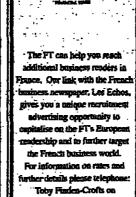
Nearly half of the UK's 350 biggest companies are falling to comply with recommendations on voting disclosure set out in the Hampel report on corporate governance this year, Pensions Investment Research Consultants reported terday. Pirc found that 172 companies - 49 per cent yesterday. Pirc found that 112 transparatory votes at this falled to disclose the results of their proxy votes at this year's round of annual meetings. The report from the com-mittee headed by Sir Ronald Hampel, chairman of ICI, recommended that companies should provide voting figures when asked by shareholders.

Under the current system proxy votes, lodged mainly by institutional investors, are disclosed only in the rare event of a shareholder poll. Jane Martinson, London





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## MFS AMERICAN FUNDS

NOTICE OF MEETING

thenge of the name of the Company-In MFS FUNDS and emondment to Artifine the Artifice of Incorporation to replace the current name by "MFS FUNDS". Thange of capital current prion US Delars to EURO as from Foliumsy 1, 1989 meadment of Artifice 5 paragraph 2 of the Artifice of Incorporation to be rewrited.

The Initial subscribed capital was US Dollars 50,000. (Bity thousand) divided into 2,200. (Into thousand) divided into 2,200. (Into thousand) two funded july paid (Class B shares of the MFS ANTERNATIONAL, FUNDS - US EXCENTY FUND, currently MFS FUNDS - US EXCENTS FUND, currently MFS FUNDS - US EXCENTS FUNDS - US EXCENTS GROWTH FUND, currently MFS FUNDS - US EXCENTS MG GROWTH FUND, currently MFS FUNDS - US EXCENTS MG GROWTH FUND, currently MFS FUNDS - US EXCENTS FUNDS FUN

10.00 a.m. local time".

Arrandment to Anticle 16 of the Anticles of Incorporation in order to add a new 8th paragraph worked as follows:

The Company may in its sole discretion most individual redemption requested in ideal if they are greated than an arroant to be determined from time to time by the Board of Unadoms".

Amendment to Anticle 18 paragraph 2 of the Anticles of Incorporation to replace any reference to "US Collers" by a reference to "the Fund's Basic Currency".

Amendment to Anticle 18 paragraph 1 of the Anticles of Incorporation to be completed in time by: "as stell as to any other services provider appointed from time to their of the Board of Directors.

Change of the Social year and attendment to Anticle 20 paragraph 1 of the Articles of Incorporation to be reworded as follows:

The Social order of the Company strate also on the set day of Federation and

of incorporation to be reworded as follows:

The fisces year of the Company shall start on the 1st day of February each year and shall end on the 3st day of January of the following year.

9. Decision concentrate the extension of the current fisces year utilit January 31, 1999.
(January 1, 1996 until January 31, 1999).

10. Amendment to Anatobe 22 puragraph 1 of the Articles of incorporation to complete sension to 1st dine by: "... of its equivalent in any other currency".

These will be no quorum requirement and the resolutions will be passed by a majority.

1 2/3 of the shireholders present or represented and voting at the meeting.

ties should strive at the registered cities of the Company at least 48 hours before in order to attend the meeting. The creates of behave charac will have to deposit their shares two clear days before the meeting or

Each share is extitled to one your.

MAY DECEMBER

M & Bearing main Paultin **D. WOLEN A.** C. INCOME THE STATE OF THE STATE O

**Marie** America

**eets S**cotland #

'bloodbath'

ster group un

BCCI staff claim careers have been stigmatised London's High Court will today consider whether employees tainted by corporate disasters can sue their former employers when the stigma stops them getting a new job. The case could make legal history. Former employees of the collapsed Bank of Credit and fraud.

top table

Despite the continuing flow

of gloomy data and difficult

trading conditions, manufac-

turing success stories can

Boeing of the US, the

world's biggest aircraft maker, buys all its pilot

seats from Ineco, an English

company that recently spent

\$2m developing seats for

Ipeco has expanded its

total sales from £20m (\$33m)

in 1996 to an expected £28m

this year - largely on the

back of orders from the US

company, which account for

60 per cent of Ipeco's turn-

Ipeco is dependent on US

exports and has been pro-

tected from the effects of

sterling's rise by its market

position. "Inevitably the

strength of the pound has

affected margins. But we've

been able to live with it by

expanding our currency

economies through increas-

ing our output as Boeing has

expanded its build rate in

the past few years," says

Steve Johnson, an Ipeco

director whose family owns

FUTURES, OPTIONS & FORES

Congrect: James Alfan Tel. (1171-337 3949

Fature5ource

FOR FREE DEMO CALL

Boeing's 757-series.

growth in 1999.

Commerce International

MANUFACTURING BEATING THE TREND

Exporter takes

seat at Boeing's

over. It is predicting another to specify speco seats in the 10 per cent total sales mid 1970s, after which orders

hedging activities and same time," says Steve John-

through gaining greater son. One long-term concern

ALL FUTURES, OPTIONS & MARGINED FOREX

LONG & SHORT

ASSESSED AND INCHES

Western, we suppliced.
Meigher of the Lundon Stock Exchan

GNI

of test cases whether the former bank staff are entitled to damages given the bank's conduct before its \$13hn collapse in 1991 - the result of the world's biggest banking

notorious failure.

Ipeco, then named Indus-

trial Precision Equipment, was founded in 1961 by Allan

Johnson, Steve's grandfa-

ther, as a subcontractor to

aerospace and defence com-

pilot stress. "After my

grandfather designed one of

the early seats he took it

home to spend the weekend

on it watching TV to dis-

cover how comfortable it

really was," says Steve John-

son, whose father. Chris. is

The company's big break

was in persuading Luft-

hansa, the German airline.

from Boeing started to roll

But the company has to

"The dilemma for us is

invest heavily to ensure that

its designs meet increasingly

how to enhance comfort,

enhance safety and reduce

for Ipeco is its dependence

on Boeing. It is trying to

weight and costs, all at the

Ipeco's managing director.

age to their careers caused by the stigma of BCCI's employees claim they have awarded. A High Court judge will been unable to find financial begin deciding in a number

services jobs. batch of 1,400 from employ- breached an implied contracbetween \$400m and \$500m. trust and confidence. The liquidators of BCCI -

claim compensation for dambecause a precedent could be. The alleged stigma-related contract. Their case was because the Lords ruling pany attracts notoriety for the mobald last fully by the gives employees a separate selling a dangerous product Some 650 former BCCI potential damages if

> The employees are claiming damages on the basis The claims come in a that the bank's conduct ees estimated to total tual obligation of mutual The key part of the case

Deloitte & Touche - have set may turn on what kind of aside recoveries to meet a management behaviour can The case is important proportion of such actions. be seen as breaching such a

House of Lords, the upper chamber of parliament which acts as the highest UK

appeal court, which ruled that such a breach was possible in law. But it warned that in practice it would be difficult to

establish if such a breach had occurred. However, the case is

from a breach of this trust bad management. even if their employment is legally ended. It overturned precedent limiting damages to the notice period - a precedent set in 1909.

Some lawyers consider this could possibly lead to stigma cases being brought against employers in other

right to damages flowing or even for straightforward

The cases related to BCCI are part of the complex network of more than 1,000 legal actions which have so far taken place since the collapse of the bank. Many of those taking action in the present case had loans with BCCI and face claims them-

benefited from the strong

pound because we buy cloth

from overseas, and this has

cut our costs as sterling has

Filtronic, based in the

northern England city of

Leeds, has grown on the

basis of ideas in the field of

high technology. The com-

pany is a leading maker of

microwave devices used in

mobile telecommunications

and electronic warfare. Fil-

tronic is publicly quoted, has

which about one-third are in

The company's equipment

channel signals to and from

telephone handsets and con-

David Rhodes a former

cent over the next few years.

"We are limited mainly by

our ability to employ suit-

network.

**Former** 

minister

defends

PA News Reporter in London William Waldegrave yesterday strongly denied that the previous Conservative government underplayed the dangers of BSE to human health in order to protect the farming industry. Mr Walde-

grave was chief health min-

ister in the early 1990s and

agriculture minister in 1994

and 1995. Public health was always the "paramount concern" of both departments while he was in charge, he told the inquiry into BSE, or "mad

cow disease". Mr Waldegrave said that, while he was agriculture minister, food safety always took priority over the interests of the farming industry, and it was wrong to see the two as mutually opposed, "It always seemed to me that of saying that there was human health on the one side and the interests of the

œ

industry on the other. "If there was the slightest question - as the world has now seen - over the safety of British food, it was a It seemed to me that by far the best way of protecting the industry was to be tough on public health issues."

The public and media demanded simple and clear answers on whether eating beef was safe, while the scientists' advice was not as clear cut, he said. Mr Waldegrave said he

always encouraged his scien-"dissident" theories proposed by researchers critical of the official line.

nect them to the rest of the He said ministers were initially confident the best scientific advice was that there Leeds University professor and Filtronic's founder and was no link between BSE and the human disease CJD. chairman. expects group and the news that there was sales to expand by 35 per "thunderbolt". He told the gest emergency of my politi-

#### Chemicals company finds solution to business equation The fortunes of CP Pharmaceuticals prompt the will be going up," says Mark Semple, whose father Ray big question: if the outlook is so grim, why can success stories be found? Peter Marsh reports owns the company and whose mother and sister also hile many UK manugrowth is contract manufacfacturers scramble for work there. turing for bigger companies. You can't make cheap orders in a colder eco-The big pharmaceuticals clothing efficiently in the nomic climate, Charles Savgroups increasingly spin out UK so it is best to go for the activities - on the grounds age has to be careful not to more expensive alternative," says Mr Markham. "We are of cost and flexibility - to overload his plant by taking on too much work. specialist concerns rather among the UK manufactur-Mr Savage, chief executive than make all their products ing companies which have

of CP Pharmaceuticals, a

fast-growing chemicals con-

cern. illustrates a puzzle at

the beart of British business.

If the manufacturing outlook

is so poor, why is it rela-

tively easy to find examples

of manufacturers increasing

Those doing well, even in

export markets hit by the

high pound, include those

that have latched on to out-

sourcing, in which bigger

enterprises hand over parts

of their production to out-

side businesses. A second

group encompasses those

using specialist design or



Family seat: Steve Johnson, whose grandfather found loeco, says the strength of the pound has affected margins

reduce this through efforts to supply other manufacturers, including Airbus, the The company has also European consortium that is products, unrelated to air- Marconi. the US company's main

rival, with seats for flight craft seats, which account attendants - somewhat for 30 per cent of sales and lower-tech versions of pilot include equipment for aircraft galleys and specialist space satellite hardware for expanded into a variety of customers such as GEC-

few years. Sales are expected

last year to about £28m this CP makes "generic" or offpatent drugs and other products sold to the state bealth

demand in a global or CP, based in north Wales, this year. It is considering benefits from outsourcing. doubling its factory space Mr Savage, a former consultant, is a main shareholder and is looking to make a public offering in the next

themselves.

to grow from £34m (\$40m)

medical equipment and and 2,500 employees, of chemicals. It had sales of £1.5m last the UK and the remainder technical skills to meet year, nearly a third demand in a global or exported, and aims to push mainly in the US. Australia and Finland. the figure to about £1.9m fits inside base stations that

Another trend benefiting CP has been the growth in

"virtual" drugs groups that

concentrate on research and

marketing, leaving all their

manufacturing to outsiders.

About a third of CP's turn-

over comes from such con-

Outsourcing also helps

Moyola Precision Engineer-

ing, in Castledawson, North-

ern Ireland, which makes

parts for industries includ-

ing aerospace, lift-trucks,

and increasing its 40-strong workforce by 15 per cent. The 25-year-old privatelyowned company invests heavily in machinery and spends more than £100,000 a

year on training. In recent years Moyola has increased sales by an average of 25 per cent a year.
"We work in a number of service but the key to its markets; if one goes down ably qualified staff," he says, I cal career."

#### **CONTRACTS & TENDERS**

## **COMUNE DI ROMA** DIPARTIMENTO III

The Comune di Roma hereby announces a new public contest through private bids, according to Art. 89 of Regolamento Contabilità Generale dello Stato no. 827/24, for the allocation in consession of the management of the council property complex called "Casina Valadier", situated in the public park of Villa Borghese - Pincio area, to be used for restaurant and entertainment activities, as well as for cultural and social events.

Due to its characteristics, the use of the building - protected under Laws 1497/39 and 1089/39 - must be selective, so that it can assume an important position within an international economic context.

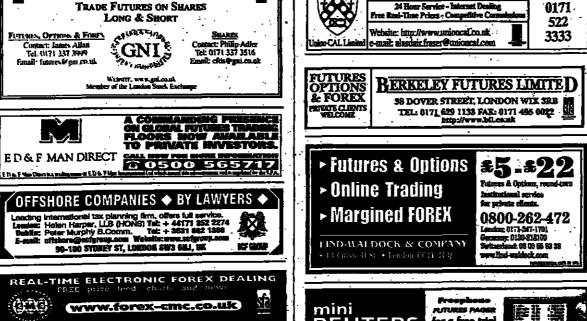
Price at auction ITL 1,300,000,000, as the corresponding annual amount of the administrative concession foreseen for a period of 12 years, starting from the completion of the works.

During the period of building renovation and modification, by and at the expense of the buyer, a utilisation payment is due, equal to 10% of the amount offered in the bid.

For deadlines and application details, please refer to the call for bids and regulations which can be consulted both at the Albo Pretorio (L.go Corrado Ricci 44 - Rome) from 9am to 12pm, Monday to Saturday, as well as at the Dipartimento III (Lungotevere De' Cenci 5 - Rome) and at the district offices from 9am to 12pm, Monday to Friday, from 24/11/98 to 4/1/99. The deadline for the presentation of offers is 12pm on 4/1/99.

The call for bids was published in the official Gazette of the Italian Republic on 24/11/98 and was sent to the Office of Official Publications of the European Community on 20/11/98.

> THE DIRECTOR (D.ssa L. Zambrini)



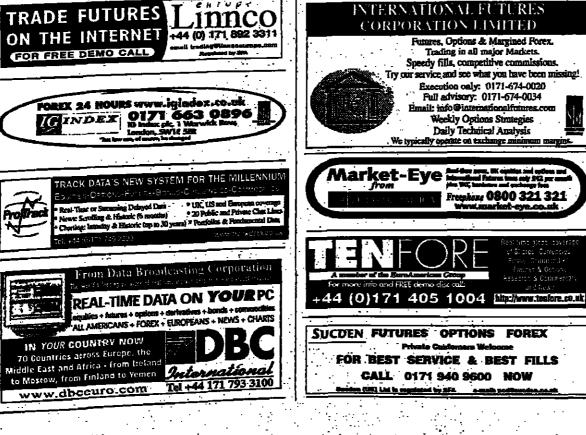










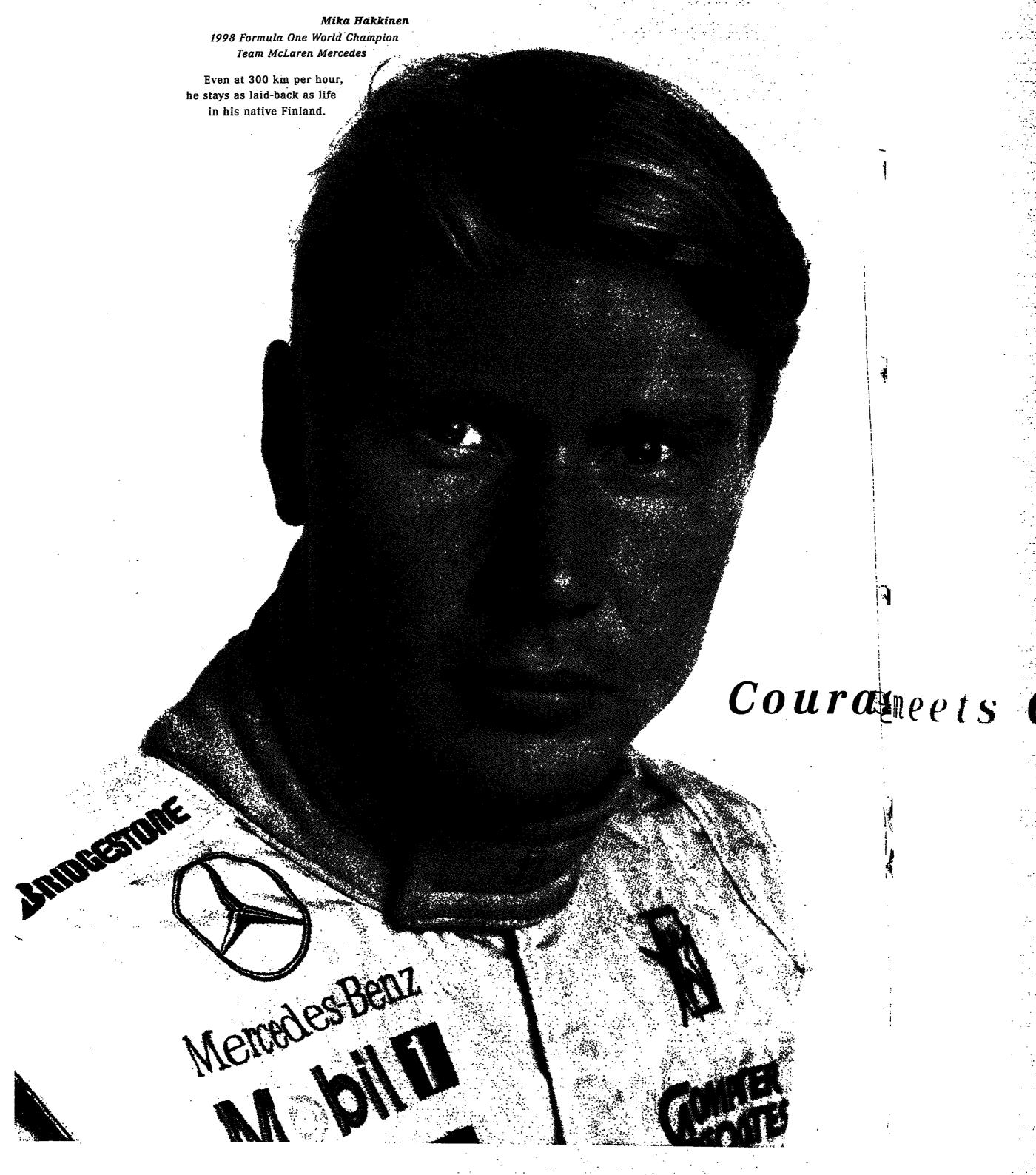


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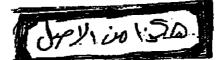
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Thai uct 1 ing ( etar inte appr terd



Can you imagine two companies, synonymous with bold thinking, taking the most daring step of all as a team? We can. Because the courageous people who led the development of a navigational system that guides drivers as if by magic are now together wi the people who designed a proving ground where vehicles can tested on roads too extreme for even the toughest human driver. Tl



Robert J. Eaton Chrysler Corporation Chairman

> His weekends seem to fly by. Especially when he's behind the wheel of a Neon race car.

Coure meets Courage

Robert Eaton

extraordinary minds that conceived of these ideas are now one at DaimlerChrysler. It's the place where the transportation industry's . most fearless thinkers are working to shape an adventurous future.

DAIMLERCHRYSLER Expect the extraordinary

IT OUTSOURCING APPLICATIONS HOSTING

## Welcome to the era of 'Rent an App

Outsourcing's next step lets companies keep complete

Richard Poynder

Eighteen months ago, Larry Koskinen concluded that the only way to improve his company's sprawling computer system was to rip everything out and start again.

But, as chief information officer at Development Alternatives (DAI), a US-based economic development consultancy, he realised this would mean closing down the Lotus Notes infrastructure on which the company's e-mail system, as well as a host of shared databases. was built. With 300 staff spread throughout 60 countries the communications blackout would have meant commercial suicide.

His solution was to recruit the services of Interliant, a small Texas-based company specialising in a form of outsourcing known as application hosting. "Effectively, we rented a Lotus Notes server based in Interliant's Houston office and had them replicate all our messaging data, as well as our Notes databases," says Mr Koskinen.

international network, this ailowed DAI's employees worldwide to dial directly into the rented system as on DAI's computers.

Mr Koskinen was so Interliant's services permanently, "From a total cost-ofownership standpoint, it made more sense to continue using interliant than to take utilise a very low-cost, very it back in-house," he says. Just to offer the 24-hour telephone support provided by Interliant would have needed three shifts of people. It also meant someone else took responsibility for

upgrades and maintenance." hot topic. And with a grow-sation at Swiss Reinsurance. ing number of service prooperators such as Deutsche to the internet, X400 [mess-management solution. Telekom and IBM Global agingl systems, and various Services, internet service host-based mailing systems, to set up a payroll application now have two choices," are getting the jitters half-have your annual conference providers such as UUNET For this you need very speci-tion now have two choices," way through the implementary you don't buy the hotel, you and Netcom, as well as new-alised skills, so we didn't says Ms Faigen. "They can tation: they realise they rent the hall," he says.

style providers such as Inter-liant, there is no shortage of suppliers.

So, how does application hosting differ from tradicontrol of data, says tional outsourcing? For a start, says Nancy Faigen, vice-president of e-business solutions at IBM Global Services, it enables companies to maintain total control of their data. "By outsourcing the application you still have your own system, but someware, the physical information and databases, and the network connections," she explains. "By using the internet you can utilise a very low-cost, very pervasive mechanism for delivering that application.

It also offers benefits to small- and medium-sized enterprises (SMEs), says Hartmut Wittig, head-of corporate strategy at Deutsche Telekom Computer Service Management. "Smaller companies often find themselves having to hire a full-time employee to manage a system that only requires a quarter of an employee to operate. Application hosting avoids this problem.

efit, says Jim Lidestri, Interliant's chief executive. "For larger companies the issue is time to market: we can roll Connected to Interliant's something out in days or weeks that might take someone else six months." For Zurich-based Swiss

Reinsurance Company it was a question of making the best use of internal resources. "We wanted to be

Lotus Notes system," says

"This meant setting up and

'By using the internet you can

pervasive mechanism for delivering'

capability to communicate internet-based payroll solu-

with all our vendors, part- tion for small businesses

ners and customers via our called EasyPayNet.

Instead, Swiss Reinsurfrom Interliant. This acted as a gateway to the world, with Interliant doing the necessary gateway work. Lotus Notes was a test bed for application hosting, now

want to mess with it."

it is only one of an increasing number of applications that may be rented. In August, IBM formed a partnership with ADP, a USbased computing services impressed he decided to use sure that we would have the company, to offer a new

Developed by ADP and

benefits administration and

companies. Tom Gormley, an analyst month, it is possible to rent at Forrester Research, suspects that the growing complexity of ERP systems offers companies little 2000 compliance package, an choice. "Over the past five online recruitment applicayears around \$100bn has tion, and a collaboration And the more studies there been spent on ERP soft- tool, developed by Lotus, Benefits like this have Friedrich Straker, head of hosted by IBM. EasyPayNet ware," he says, "This has made application hosting a global Notes network organi- provides a secure online pay- been done on the basis that DAI uses Instant Teamroll processing, tax filing, outside experts come in to room to manage projects. help implement the soft- assembling teams of consulviders, including network operating separate gateways human resource information ware, and then leave the tants in virtual conference company to manage on its rooms on the web. "If you "Small businesses wanting own. But many companies think about it, when you

acquire the necessary softcan't manage these very ware and equipment and run complex applications alone." Mr Gormley expects this it themselves or they can get the same capability from a provider like ADP. Instead of ing their ERP software, inilogging on to their internal tially over private networks, system to get their processed eventually over the internet. data, they connect to the "They will do so because the economics will be overprovider's system across the whelming," he says, predict-

The success of application ing that the applications hosting will depend on comrental market will grow from panies' willingness to outa pittance to \$6bn by 2001. source critical applications; Groupware and collaborain particular, the Enterprise tion tools remain the fastest Resource Planning (ERP) growing sector today, howsoftware increasingly being ever. In September Interliant used to integrate financial. took the process further, launching online "rent an human resource and manuapp" products. With prices facturing processes within starting at \$14.95 a user per applications on an ad hoc basis over the web by credit

way through the implemen- you don't buy the hotel, you

LOUISE KEHOE

charges and thus make access easier

International debate about

focused primarily on issues

such as privacy, encryption

rarely gets mentioned, which

internet economy of the US a

participants and certainly to

administration has created.

policy" regime that favours US electronic business.

policies, the government has

ensured that internet access

anywhere in the world. For

less. US computer users can

telephone charges to add to

The result? More than 30

compared with less than 15

in the US is cheaper than

\$20 flat fee per month, or

hours at a time, with no

their costs.

per cent of the US

population is online

per cent in the UK, for

in effect, an "industrial

regulatory and taxation

Through favourable

and taxes. Yet there is a much broader issue that

is giving the so-called

'offline" businesses.

The Clinton

the internet has so far

IN SAN FRANCISCO

card. That includes a Year

TAUH .W NHOL

## Those that can, teach leadership

Management development is a growth industry, but our approach to developing leaders should be more realistic

Dear Professor Hunt, I recently joined a large global organisation. One of its attractions was the promise to invest in my development and I have been on several leadership nodules run by outside consultants. I must admit to eelma daunted by what is demanded for top leadership positions and have been hinking about changing tack altogether, Manage development itself seems to be a huge business. Lan now wondering if it is this field early 30s should look to for a

Prof Hunt replies: If you want a business to get into, the development of managers is a winner. Look at any study of the past five vears or the predictions of the next five and the only conclusion to draw is that growth industry.

Training Magazine, a US publication, recently reported that US companies spent an estimated \$58.6bn (£35.4bn) on employee training and development in 1996. While comparable figures for Europe are not easy to find, and allowing for the fact that there are wide variations between countries, anyone involved

in this business will tell you Globalisation, the march of technology, company restructuring, the rise of performance assessment all have contributed in some way to the main driver: the search for leaders who can manage successfully in this complex and ever-changing business environment.

It is hardly surprising that you feel daunted. By definition, effective leaders are unusual. Mass production of unusual people is a contradiction in terms. are on the subject of idership" competenci the more unlikely it is that

interpersonal, analytical and deemed essential for business leadership, almost

regardless of level, would deter all but the most determined and gifted

individuals. There is not even a lot of evidence that those chief executives who possess this formidable armoury of skills are more likely to run effective businesses. That is why, in recent years, there has been a welcome move to show more interest in the characteristics of the ton team rather than the chief executive alone. After all, no man or woman runs a business in isolation. And slowly, research is showing that the performance of top teams that can collectively iemonstrate some of these skills bears more than a passing relationship with the performance of the firm. In

more on the leader and his or her team. This is a healthy move and ties in with my own view that our ambitions for developing leaders should be more realistic. If we continue to confront young people with god-like lists of what is expected of them. then we are certain to fail to

which case management

development should focus

less on the individual and

We should not be surprised if fewer and fewer young men and women will see their future in global organisations where the expectations of their interpersonal or leadership skills are grossly overblown. Why should they bother? Why tolerate this humiliation when running a

find or develop them.

BRILLIANT TEACHER-ALL HIS CASE STUDIES ARE BASED ON HIS OWN BUSINESS FAILURES



small consultancy two or three days a week in the development industry could provide more fun, more freedom, as much or more wealth and - importantly realistic expectations of

what they might achieve.

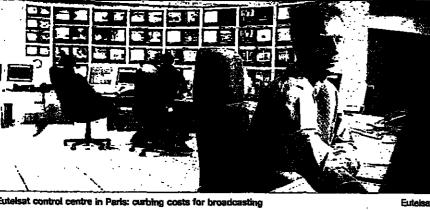
Should you get into this ousiness yourself? Given that it is still the prevailing view that management development is the way to produce these stars, it comes as no surprise to find that companies are willing to invest hugely in that activity. Some figures suggest that in the US the market for in-company programmes will increase by 65 per cent during the next five years. So there is certainly room for you if you are really interested.

Take a broad view, do not confuse development with courses. The idea of a programme, modular or not as the best means of delivery is increasingly being questioned. Taskforce membership, job rotation, overseas appointments. on-the-job learning and distance learning all now feature prominently in modern development delivery.

Several factors have influenced this shift. First, it is clear that typical classroom teaching may not be the most effective way to learn many of the admired business skills. Second. while the demand for training has increased, the number of trainers (whether corporate staff, business school faculty, or external consulting firms) who can deliver a quality learning experience has not increased in parallel.

While management development is a lucrative goal to pursue, effective developers are at a premium So before you leap onto this bandwagon, practise on your company's programme Find out if you have the skills needed to succeed in this game. There is little joy in being second-rate at your job but, for some reason, to be a second-rate consultant in management development is very sad indeed.

John W. Hunz is Professor of Organisational Behaviour at Landan Business School and a consultant to private and public sector clients. This column appears fortnightly.



intelsat control centre in Parls: curbing costs for broadcasting

**TECHNOLOGY SATELLITES** 

## Watch this space

George Cole on a system that can reduce broadcasting costs by combining digital data streams above the earth

A new satellite by a satellite dish. The dish technology could greatly reduce the cost of distributing digital sion, PC or business television system. television programmes, data, multimedia and internet content over Europe and parts of the Middle East. The Skyplex system has

the European Telecommunications Satellite Organisation, and the European Space Agency, and built by Alenia Aerospazio, an Italian technology company.

variety of data streams on board a satellite and then area as a single data stream. Data multiplexing is nor- launched on October 9 and mally carried out on the ground, with broadcasters or ber 10, is co-located at the data content providers send- same orbital position, and is ing their data to a multiplex- the first satellite operating sion, data distribution, and

the data stream is sent to a three Skyplex units, with satellite (uplinked) and then two units used for back-up. transmitted back to earth (downlinked) to be received eight uplinked data streams. down," says Mr Berretta.

new satellite by a satellite dish. The dish

The conventional multiplexing system works, but television or data broadcasters must send their data via fibre-optic link or microwave transmission. This can be expensive, especially if data is being sent from several sites or even from different countries.

The Skyplex system has been successfully tested by Skyplex makes it possible Eutelsat aboard the compato combine or "multiplex" a ny's Hot Bird 4 satellite, positioned in geostationary orbit over the equator at a distribute them over a wide longitude of 13 degrees east.

Hot Bird 5, which was went into service on Novem-Skyplex on a commercial as an internet gateway. After being multiplexed, basis. Hot Bird 5 contains

with data speeds of up to 6 megabits per second. Data is downlinked from a Skyplex big boost, perhaps at the 27.5 megabits per second. the detriment of established.

The Skyplex unit multiplexes the data in real time, adds error correction data and then converts it into a format that conforms to the European Digital Video Broadcasting (DVB) standard. More than 70m homes in Europe, the Mediterranean basin and the Middle East receive television channels from Hot Bird satellites. Gluliano Berretta, Eutel-

sat's director-general designate, says Skyplex could greatly reduce the uplink dial up the internet for costs: "It normally costs hours at a time, with no around \$200,000-\$250,000 to uplink data to a satellite, but with Skyplex it could be as low as \$70,000."

Potential uses for Skyplex technology include the distribution of local or regional programming, thematic channels, business televi-

But the implications of varying internet costs go far beyond consumer spending. "The barriers for using Lower telecommunications satellite to distribute your rates also make it cheaper programmes, multimedia for European electronic Each unit can handle up to content or data are coming merchants to set up their web servers in the US even

if they plan to sell products to customers in their home countries. Steep charges for local telephone calls used to access the internet also discourage the formation of new electronic businesses in Europe and Asia.

The only way for Europe and Asia to narrow the US lead in the

internet economy is to reduce their own telecommunications

The cost advantages of the US are determined to a large degree by regulations that prevent local telephone companies charging access fees to internet service providers that use their telephone networks. This policy may have come about by accident - the result of regulations failing to keep pace with technology changes – but it is now in effect ensuring that internet prices in the US are not

aligned with real costs. In traditional industries, such policies would surely create an outciv among international trading partners. The use of government subsidies, tax favours and other mechanisms to maintain or increase industrial growth has been at the root of many trade battles. Yet so far, the US government's industrial policy towards electronic

business has gone largely unchallenged. Can it be that other countries have yet to recognise its effects? Of course, the best response that other countries could make to the rapid growth of the US

internet economy would be to find ways to lower their own local telecoms costs which in many cases are kept artificially high by market regulation. That is what internet users and businesses should be pushing for.

Playing the internet market

Where is your web site? Businesses with "mission critical" web sites electronic stores, auction houses and the like - as well as those with an "image-critical" internet presence, are turning increasingly to third parties to maintain the computers and communications facilities that keep their web pages purring 24 hours a

day, every day. The trend has made Exodus Communications one of the fastest growing companies in Silicon Valley during the past year, and created a new niche in the IT outsourcing services industry.

Exodus's data centre, at the company's Santa Clara headquarters, is like no other I have seen. Fitted with dozens of cages, like a jam-packed 200, it houses the rack-mounted electronic "beasts" that power hundreds of popular web sites. The cages vary in size, volume of traffic on the web

At the simplest level. Exodus merely provides a secure building – with multiple back-up communications and power lines – explains Ellen Hancock, Exodus chief executive, as we tour the facility. Yet as electronic businesses grow, companies tend to hand over more and more responsibility to the services company to ensure that upgrades and unexpected systems problems are dealt with promptly.

Leading businesses out of the land of tangled networks and miscreant servers is Exodus's mission. A growing portion of the company's clients also host their internal intranets in its

The next step for Exodus will be to offer database hosting services - as part of an initiative by Oracle, the database software company. to enable small and medium businesses to make use of its products. For Ms Hancock, a veteran

of International Business Machines and Apple Computer, it is all suspiciously like the old days when mainframe computer systems became just too complex for a lot of companies to support internally.

Come to think of it, buying access to database management software is reminiscent of the days of

As all good free-marketeers will tell you, messing with market forces is a perilous game. The internet is no exception. Local telephone companies in the US, which have little financial incentive to increase internet traffic on their networks, have failed to invest in creating high bandwidth links to US homes and businesses. ISDN lines, for example, are less widely available in the US than in Europe.

This has created the "last mile" problem, so called because although the trunk lines of telephone networks are capable of carrying high speed signals, connections to homes are typically Addressing this problem is

the aim of Microsoft's partnership with Qualcomm. Together, the software company and the wireless communications technology specialists plan to bypass the phone companies' last-mile chokehold with wireless links.

ad h

In other words, market forces are at work. And who better to drive them than the I'l' industry's most successful

Share your views in the Eagle Eye discussion group on the FT web site (town.FT.com) or contact roughly proportional to the timesharing Could Exodus Uchoonix netcom.com Louise Kelioe by e-mail on

MY DECEMBER.

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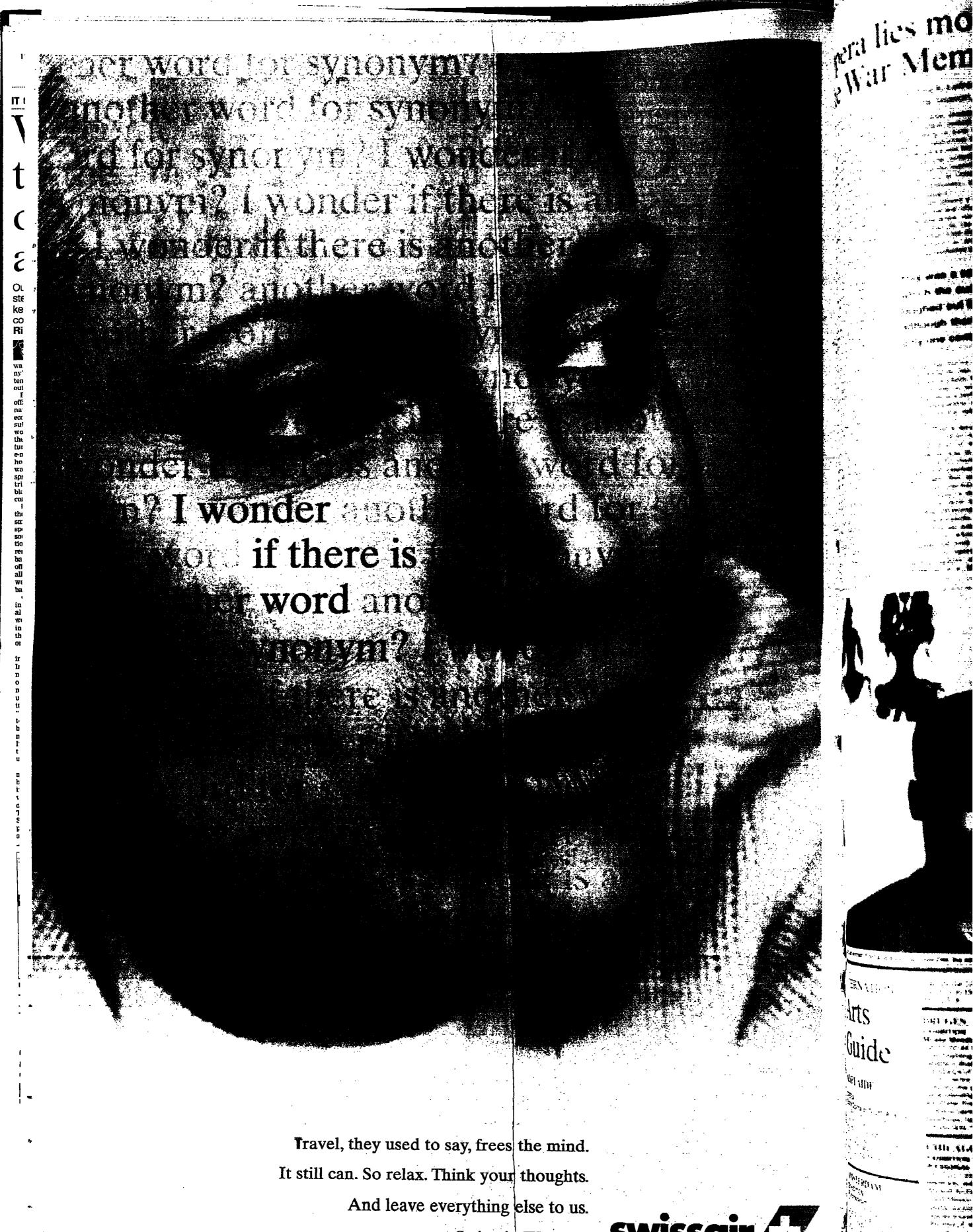
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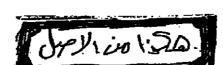
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MUSIC ELLIOTT CARTER

Laced with

A splendid Barbican concert in

London on Saturday not only

imminent birthday, but proved

celebrated Elliott Carter's

that at 90 this remarkable

American composer is still a

will not be heard until next

September, in Berlin.

spring): three opulent

creative force. His new opera

his first - is complete, though it

Meanwhile we had two London

and also his Fifth String Quartet.

premieres to be going on with,

Oliver Knussen conducted the

ISCM festival in Manchester last

athletic, brooding and brilliantly

BBC Symphony in Carter's

Symphonia (as he did at the

venzenis, respectively

airborne. The composer has

added a subtitle: sum flexae

pretium spei (\*I am the prize of

flowing hope"), the closing line

of Crasbaw's Latin poem about

poetry which inspired the work.

The Fifth Quartet (1995) is

dedicated to the superb Arditti

team who performed it here.

emphasise the individuality of

each voice in his quartets; in no

5. the six movements proper are

linked by "interludes" in which

the separate players try out and

explore fragmentary ideas from

before and after. As intended, we

seem at once to be hearing both

an illuminating rehearsal and a

performance. The music is rich

Carter's ingenious ruse makes it

Ursula Oppens joined the

Arditti for the new Piano

Quintet. Her plane is set in

maximal contrast with the

strings - initially terse and

staccato against their lyrical

polyphony, later taking off in

puckish virtuoso flights while

When they share material, it is

usually at different times: the

piano starts a new "movement"

while the strings are still

they are otherwise occupied.

easier to appreciate immediately.

in beautiful invention, and

Carter has always liked to

wit and

wisdom

## Opera lies moribund on the War Memorial stage

Disastrous casting policies and lack-lustre productions have dogged the San Francisco opera company all season, reports Timothy Pfaff There's more than one way to onstage came abundantly from Valery Gergiev making his local

lose an opera company. San Francisco Opera now plies its trade in a sumptuously refurbished War Memorial Opera House, but this season - by a margin the most dismal in this observer's 28-year experience - it has become something of a sweatshop. Opera in San Francisco now feels like work on both sides of the curtain. A company that seemed unable to get off the "Streetcar Named Disaster" took until the season's penultimate offering, Peter Grimes, to muster a production that looked and sounded as if anyone cared.

The Grimes was announced and marketed as a new Christopher Alden staging, but financial constraints prompted the com-pany to resort to its quartercentury-old production, memorably directed on its two previous outings by a distinguished Balstrode, Geraint Evans. While John Copley's revival lacked the coarseness of his other work in San Francisco, it also lacked definition. Principal characters never quite came into focus, with Thomas Moser's gripping protagonist the only stage presence more compelling than - unal-loyed Copley here - the borough's miscreant movers.

Deborah Riedel's big-voiced Ellen Orford veered uneasily between naive do-gooder and defiant outcast, and tended to disappear when not singing. Alan Held's squinty Balstrode lacked presence, to say nothing of the moral authority, to order Peter to take his boat out and "sink her". Only Moser, who also delivered the production's only singing of directed. Honing in on the character's schizophrenia (artistic, not clinical), he chillingly caught

the pit, where Donald Runnicles, farewell. largely back on form this season and here conducting an opera he clearly knows and loves, led with authority. The orchestra and chorus became the important characopera ultimately exerted its

wonted impact. Runnicles played a similar role in one of the few other moments this season when one simply forgot one was in the theatre: a transporting "Und du wirst mein Gebieter sein" in Arabella, with Franz Grundheber's Mandryka

This was a season in which the audience laughed out foud although there was only one comic opera

joining the entire audience in succumbing to the charms and strengths of Claire Watson's Arabella. It was a moment to be grateful for in a performance otherwise memorable only for Donald McIntyre's indelible Count

More than a decade ago, Lotfi Mansouri began his tenure as general director with the only promise he was in a position to make: that there would be heightened emphasis on theatrical values. But in a season in which he uncharacteristically directed none of the productions. show after show lay in state on the War Memorial stage while vocal standards dropped to unprecedented lows. This was a season in which audiences Peter's wild careering between laughed out loud - though the tottering colossus and aspiring only comic opera was a lateseason import of the Kirov's

The most devastating laughter greeted the season's only other new production after André Previn's disastrous A Streetcor Named Desire: a limp Emilio Sagi ters they are in Grimes, and the staging of Don Carlo with insipid postmodern designs by Zack Brown. The cruellest guffaws though they largely expressed incredulity - targeted Markella Hatziano's vocally inept Eboli. The rest were elicited by an autoda-fe that looked like a Triomphal March gone bad (complete with puppet show), and by Sagi's problematic final moment and replace it with action that I'd scribe if I had the faintest idea

what happened. Emmanuel Joel's glacially slow tempos did nothing to erase memories of one of Runnicles's conducting a 1992 revival of a celebrated Don Carlos that didn't warrant replacing. Sergei Larin's stardy Carlo and Anthony Michaels-Moore's intermittently noble Rodrigo represented the only acceptable singing, offsetting James Morris's malevolent, distended Philip II and Nina Rautio's Elisabeth, which began promisingly but by "Tu che le vanità" devolved into a pathetic Montserrat Caballé imperson-

Two other productions, both old enough to vote, showcased box-office favourites Ruth Ann Swenson (Manon) and Carol Vaness (Norma), the former singing creditably if not quite to her accustomed standard. Vaness, flanked by Anna Caterina Anton-acci's unreliable Adalgisa, Michael Sylvester's stolid Pollione and Andrea Silvestrelli's woofy Oroveso, sang a petulant, verismo Norma, a vocal disaster on opening night, on the second accurate without a trace of bel conto lim-What direction was lacking Betrothal in a Monastery, with pidity. Any chance at nobility



Thomas Moser's performance as Peter Grimes (above) and Donald Runnicles in the pit were among the few high

as countermanded by the deci- casting policies. A week before sion of the revival director, Andrew Sinclair, to have her slit. the throat of a half-naked male human sacrifice during "Casta diva" and collect the blood in a chalice. At least she didn't drink. A season-opening Turandot revived the popular David Hockney production with an inade-

Princess. But it was Tristan und Isolde (in a revival of an empty Michael Hampe production last public outcry at the company's not save.

opening, Karen Huffstodt - who couldn't manage Salome two years ago - was excused and replaced by Elizabeth Conneil. whose opening night was reportedly rough. But the second performance she sang ably, and generously, while still a far cry from a credible Isolde. Wolfgang quate cast headed by Gabriele Schmidt lunged desperately at Schnaut's grotesquely squally Tristan's notes, missing many of bouse before Act 3. This was a show Runnicles and Violeta sung by Schnaut) that raised a Urmana's fine Brangaene could

There is widespread alarm that them wildly and clearing the look like vandalism. Jane Ragien.

fried in the company's Ring next summer. But the biggest concern is Mansouri's decision to hire Andrei Serban (for his first Rino) to rethink and redirect Nikolaus Lehnhoff's widely admired and internationally imitated production, and Robert Perdziola to "revise" John Conklin's resplendent designs. It's beginning to singing her first complete Brunnhilde here, will have her work

## developing the last one, or vice

work wries into the

All these complications are under masterly control, and laced with mischievous wit. Carter is incorrigible, and incomparable. The audience for this concert was gratifyingly large and warmly responsive

A few nights earlier Christoph von Dohnányi explored more familiar territory with the Philharmonia (and an even bigger audience) in the Royal Festival Hall: Mahler's Second which is sponsored by Channel 4, Symphony, the "Resurrection". It had been awesomely well lives of the chattering classes: string-flourishes at the start to the multi-media artist Tacita the grand choral peroration (the Bach Choir in lusty form) and with the sea in work which off-stage brass in the Finale.

Dohnányi revealed more delicate polyphony in the Andante than one generally hears, and even more whimsical and sinister details in the Scherzo (though it was a notch slow, and therefore slightly tame). The solo singers were Nathalie Stutzmann, whose deep contralte in "Urlicht" was earnest and a bit plummy, and the lovely soprano Inger

Dam-Jensen If there was a price to pay for Dohnányi's comprehensive rigour, it was in the string-tone: the violins sounded so exhaustively drilled that there was no illusion of spontaneity. and in pianissimo passages not much bloom. Still – hugely impressive, and a huge success

A popular winner, if not a cerebral one: Chris Offil, the odds-on favourite, with some of his brightly decorative work

## Sweet smell of success

Chris Ofili wins the Turner Prize, reports Antony Thorncroft

Chris Ofili has won the 1998 on a record. In cheeky homage, acrylic, oil, resin and elephant Turner Prize, worth £20,000 and he is happy to inscribe the names dung, is on offer at Christie's aucfavourite was given his cheque the Tate Gallery in London last

It was the first time an artist working mainly with paint has it went to Howard Hodgkin: in recent years it has been snappe up by video artists. But Ofili fits neatly into the Turner tradition of sparking off controversy; he invariably adds elephant dung to

his brightly decorative paintings. The use of dung is to remind Ofili, who was born in Manches ter in 1968, of his African origins: his parents come from Nigeria. It also, with its perceived ugliness, acts as a counter to the almost garish colours he employs in his work, which in recent years has become increasingly figurative.

There is little attempt in his art to avoid his origins. Ofili's paintings have a sunshiney, folksy look, reminiscent of an African street market. His portraits are often familiar black icons, with Afro hairstyles and exuberant poses. But there is also an inner city, urban feel to the work: Ofili is drawn to gangsta layers of paint on his canvases to the laying down of instruments

tons of prestige. The odds-on of black rap artists, as well as tion of works from the Saatchi sportsmen like Clive Lloyd and collection next Tuesday, estiby clothes designer Agnès b. at Frank Bruno, on to the dung mated at up to £10,000. It should which attaches itself remorse now sell for more. lessly to his paintings, as well as 
The runners up for the Turner, supporting them off the floor.

Ofili is not a polemical artist; were the video artist Sam Taylorhumour, and is not afraid to use

Ofili fits neatly into the Turner tradition of controversy: he invariably adds elephant dung to his paintings

pornography as a source of ideas. He is likely to be the most popular and accessible winner of the Turner for many years, if not the most cerebral.

Ofili, who is attached to the Victoria Miro gallery, studied at Chelsea School of Art and the Royal College of Art in London. His work is bought by Charles Saatchi, and it was included in rap and likens the imposing of last year's Sensation exhibition at the Royal Academy. "Them Bones", painted in 1995 with

stretches from videos of lighthouse beams to drawings of waves; and the sculptor Cathy de Monchaux, whose compositions, using a sensual mixture of materials, are perhaps the most intriguing. The work of all four shortlisted artists is on display at the

Dean, who employs her obsession

WOOOL WIN

Tate Gallery on Millbank until January 10, 1999. The Turner Prize is much mocked for concentrating on a small coterie of artists working at the cutting edge, for its concern with political correctness and for operating within a small group of gallery owners linked to the Tate Gallery. But the prize is designed to provoke discussion, and to be concerned with new developments in contemporary art. Much of the work is, at the least, interesting, and it certainly attracts a new and younger audience to the gallery.

David Murray

#### INTERNATIONAL

#### ADELAIDE

State Opera of South Australia The Ring: second cycle of Wagner's opera. Performed in Australia for the first time since 1913, The Ring is conducted by Jeffrey Tate and includes Janis Martin among the cast; to Dec 4

#### **AMSTERDAM** EXHIBITION

Rijksmuseum Tel: 31-20-673 2121 Shakudo: display of Asiatic objects highly popular in Europe and imported in large quantities by the Dutch East India Company. Mainly they were luxury goods such as sword hilts and tobacco boxes; to Apr 5

Netherlands Opera, Het Muziektheater Tel: 31-20-551 8911 The Queen of Spades: by Tchaikovsky. Conducted by Semyon Bychkov in a new staging by Lev Dodin. An

international co-production that will travel to Florence and Rome; Dec 2, 6, 8,

BRUGES EXHIBITION Tel: 32-50-44 6644 From Memling to Pourbus: exhibition illustrating the importance of Bruges as an artistic centre in the 16th century. Covering the period between Hans Memling (c.1430/40-94) and Pieter Pourbus (1523-84), it contains paintings, drawings, sculptures, tapestries and manuscripts; to Dec 6

CHICAGO EXHIBITION Art Institute Of Chicago Tel: 1-312-443 3600 www.artic.edu Art and Archaeology of Ancient West Mexico: more than 200 works, including terracotta figures found in tombs, and findings of recent excavations; to

OPERA Lyric Opera of Chicago Tel: 1-312-332 2244 www.lyricopera.org Rise and Fall of the House of Mahagonny: by Kurt Weill, libretto by Bertott Brecht. New production, conducted by Sylvain Cambreiling, with a cast including Catherine Malfiten; Dec 4

COLOGNE OPERA .

Oper der Stadt Tel: 221-221 8400 Die Vögel: first modern staging for Walter Braunfels's opera. Premiered in 1920, it was banned by the Nazis and largely forgotten until a recent recording. This production is conducted by Bruno Weill and staged by David Mouchtar-Samorai; Dec 6

FLORENCE **OPERA** Teatro Comunale Tel: 39-055-211158 www.maggiofiorentino.com La Bohème: by Puccini. Conducted by Serriyon Bychkov in a staging by Jonathan Miller. Dec 3

#### FRANKFURT OPERA Oper Frankfurt Tel: 49-69-21237 999 www.frankfurt-business.de/oper

 Die Zauberflöte: by Mozart. Conducted by Guido Johannes Rumstadt in a staging by Alfred Kirchner. With a cast including Britta Stallmeister and Kirsten Blanck; Dec 3, 5, 7 Rigoletto: by Verdi. Conducted by Olaf Henzold and staged by Kurt Horres. With John Bröcheler and Elzbieta Szmytka; Dec 2, 4, 6

### HELSINKI

Tel: 358-9-403 021 Anna Bolena: by Donizetti. Conducted by Maurizio Barbacini

in a new staging by Jussi Tapola, with designs by Anna Kontek; Dec 2, 4, 8

LONDON CONCERTS Barbican Hall Tel: 44-171-638 8891 London Symphony Orchestra: Sir Colin Davis conducts a series of works by Elgar, Dec 6

Royal Festival Hall Tel; 44-171-960 4242 London Philharmonic Orchestra: playing a score composed and conducted by Carl Davis, It accompanies a screening of The Thief of Bagdad, the 1924 film starring Douglas Fairbanks;

Wigmore Hall Tel: 44-171-935 2141 Fazil Say: Turkish planist makes his first London recital. Music by Bach, Berg and Mozart features, as well as some of Say's own compositions; Dec 7

**OPERA** 

English National Opera. London Coliseum Tel: 44-171-632 8300 Boris Godunov: by Mussorgsky. Conducted by Noel Davies in a new staging by Francesca Zambello, with sets by Hildegard Bechtler, Gidon Saks sings the title role; Dec 2, 4, 8 La Traviata: by Verdi. Jonathan Miller's production includes Sandra Ford and Christopher Sooth-Jones among the cast. Paul Daniel conducts:

THEATRE National Theatre Tel: 44-171-928 2252 Betrayal: by Harold Pinter. Trevor with a cast including Anthony Calf and Imogen Stubbs; Lyttleton Theatre; Dec 4, 5, 7, 8

**NEW YORK** CONCERTS Avery Fisher Hall, Lincoln

Tel: 1-212-875 5030 www.lincolncenter.org New York Philharmonic: conducted by Kurt Masur in works by R. Strauss. With soprano Deborah Voight, Dec 4,

Metropolitan Opera, Lincoln Tel: 1-212-362 6000 www.metopera.org

La Traviata: by Verdi. Production by Franco Zeffirelli with a cast Including Patricia Racette and Marcelo Alvarez, James Levine is the conductor, Dec 4

**PARIS CONCERTS** Salle Pleyel Tel: 33-1-4561 6589 Orchestre de Paris: conducted by Emmanuel Krivine in works by Brahms, Beethoven and Dvorak. With piano soloist Krystian Zimerman; Dec 2, 3

Opéra National de Paris, Opéra Tel: 33-1-4473 1300 www.opera-de-paris.fr

The Merry Widow: by Franz Lehár. Conducted by Armin Jordan and with a cast including Frederica von Stade and Hakan Hagegard: Dec 4, 6

Théâtre des Champs Elysées Tel: 33-1-4952 5050 The Magic Flute: by Mozart. Jean-Claude Malgoire conducts and the staging is by Pierre Constant. With La Grande Ecurie et la Chambre du Roy and the Maîtrise du Centre de Musique Baroque de Versailles: Dec 5. 7

ROME CONCERTS Accademia Nazionale di Santa

Tel: 39-6-6880 1044 Orchestra and Choir of the Accademia Nazionale di Santa Cec: conducted by Norbert Balatsch in works by Beethoven. With piano soloist Michele Campanella; Dec 2 Orchestra and Choir of the Accademia Nazionale di Santa Cec: conducted by Myung-Whun Chung in works by Mozart and Mendelssohn. With piano soloist Murray Perahia; Dec 6, 7, 8

SAN FRANCISCO

**OPERA** San Francisco Opera, War Memorial Opera House Tel: 1-415-864 3330 www.sfopera.com Peter Grimes: by Britten.

Conducted by Donald Runnicles In a staging by John Copley, with sets by Carl Toms. The title role is sung by Thomas Moser, Dec 2, 5, 8

**TOKYO** CONCERT

Orchard Hall, Bunkamura Tel: 81-3-3477 9999 Silent Cities: the Tokyo Philharmonic Symphony Orchestra gives the world premiere of Mark-Anthony Turnage's composition, ending a year-long festival of British contemporary music; Dec 5

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western Europe on medium wave 648 kHZ (463m) **EUROPEAN CABLE AND** 

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At 08:20 Tanva Beckett of FTTV reports live from UFFE as the London market opens.

MARTIN WOLF

## UK and the spider

When it comes to Europe's single currency, the moral is: if at first you do not succeed, wait, wait and wait again

The pressure has already the euro now less than a month away, the British great and good, in advertisements and letters in newspapers, are calling on the government to say it will join as soon as possibl

This is what Tony Blair wants. He expected the country's self-exclusion from an up-and-running economic and monetary union to stir the British business and political elite into action Their clamour is bound to become deafening. The prime minister will be forced to respond, at minimum political risk to himself. The UK will then join - probably at the wrong rate.

All this is depressingly familiar. British policy has, since the 1950s, been marked by lack of enthusiasm for the European project on the one hand, and fear of exclusion, on the other. The and delayed entry into whatever the continent has agreed. This is the worst of both worlds; the UK ends up joining what it has had little say in creating.

For this reason I concluded two years ago that the UK had better join. Emu from the beginning (FT October 1 and 8 1996). For ne. The question now is whether the UK should join as soon as feasible or. having decided to wait and see, should continue to do so a while longer.

My answer is: wait. Having missed the earlier not to join now. In this I will be no doubt accused of inconsistency. I could answer that a foolish consistency is the hobeoblin of little minds. More seriously, I do argue, with Lord Keynes, that when the

mind. How have the facts

• The monetary policy

professionally competent

oody than the European

• The inflation target of 2.8

per cent is superior to the

ECB's 0-2 per cent range.

Yet, like needles stuck in

being symmetrical with

respect to inflation and

grooves, the arguments

earliest possible

advanced in favour of the

participation have hardly

by UK business leaders in

for example, that "outside

be burdened with higher

interest rates". There is no

reason why this should be

True, short-term official

intervention rates are 345

basis points higher in the

UK than in Germany at the

different cyclical position of

the two economies. But the

government bonds is only 70

difference in 10-vear

basis points. This is

UK bond yield curves

explained by the higher

British short-term interest

rates. But Bank of England

unpublished estimates of the

forward short-term interest

rates implied by German and

the FT (November 23) says.

Emu British business would

changed. An advertisement

Central Bank: and

The first change is in European politics. Electorates have now chosen governments that have little, if any, sympathy with the underlying philosophy of the Maastricht treaty. Above all, Oskar Lafontaine, the new German finance minister, explicitly rejects his country's past adherence to the over-riding goal of price stability in the medium term. The full consequen of this shift have yet to be worked through but they

The second change is in British politics. Two years ago the UK seemed on the verge of detaching itself from the EU. Under Mr Blair, there seems much less chance of that, even if the country does remain outside Emu for many years.

wili be huge and

important change, bowever, is in the domestic monetary policy regime. For the first time in my professional life. the UK has a monetary policy regime that is superior to the alternatives. in particular, The new regime is more transparent and politically accountable than the one in the Maastricht treaty;

UK and the euro-zone

| •                                |       |             |
|----------------------------------|-------|-------------|
| · .                              | UK    | <b>E</b> 11 |
| Linemployment rate*              | 6.2%  | 10.9%       |
| inflation rate**                 | 1.3%  | 1.0%        |
| Fiscal deficit as % of GDP***    | -0.1% | 2.3%        |
| Gross public debt as % of GDP*** | 51.8% | 73.8%       |
| 10-year bond yield****           | 4.68% | 3.99%       |

suggest short rates will converge by 2006. That expectation may be explained by the belief that the UK will join Emu. But low expected British behind it. On the EU's harmonised index of inflation in the year to October, at 1.8 per cent, is

only marginally above the euro-zone's average of 1 per cent (see chart). The market seems to expect the UK's inflation target to continue to be achieved. It has reasons for doing so

The UK's general overnment fiscal deficit this year is forecast at only 0.1 per cent of gross with 2.3 per cent in the euro-zone; its ratio of gross public debt to GDP is 62 per cent of GDP, compared with 74 per cent in the euro-zone; and the catio of public spending to GDP is 40 per cent in the UK, against 49 per cent in the euro-zone. All this should belo the UK sustain low inflation an low nominal interest rates in the years ahead. True, if the ECB is expected to deliver inflation still lower than in the UK, nominal interest

rates in ettros will be lower But there is no reason for real interest rates in the euro-zone to be any lower than in the UK. Given the the UK, Britain's real interest rates could be the The creation of the UK's new monetary framework is

a dramatic change. It leaves

only one significant benefit

of membership of the euro-zone: exchange-rate stability Note, however, that exchange rate stability within the euro-zone is not overall stability. Being a very large economic area with a low ratio of trade to GDP, the euro-zone is likely to practise benign neglect of the exchange rate (indeed, an activist exchange rate policy might be inconsistent with the overriding goal of price stability). In that case the UK's overall exchange

rate could be as unstable within that zone as it has been outside it. with absolute stability vis a vis the other members offset by greater instability vis à vis currencies outside. This

than 40 per cent of the UK's exports of goods and more than 60 per cent of its exports of services go outside the EU.

A still more important doubt, however, concerns the value of exchange rate stability. The overall benefits for an economy as big as the UK's (the fifth largest in the world) are probably quite modest:

Despite being outside the exchange rate machanism for all but two years in the conomic growth has compared well with the EU average, while UK yment is little more than half the euro-zone verage, Moreover, the stock of inward direct investment in 1997 was 23 per cent of the EU's total, while the inflow that total. The fluctuating exchange rate does not ppear to have damaged UK real economic performance, or its attractiveness to

foreign investment. Maybe, the UK should have been in Emu from the Maybe the UK should be in the middle of the current debate between Euromonetarism and Euronot. Now that it has a sensible monetary policy regime of its own, it is in an excellent position to wait and see. It should try to find out whether this risky project works, which may

not be clear for years. There is no powerful economic objection to this course. The arguments igainst it are political. Reasonable people may reasonably differ on this. But to its continental partners the UK can advance at least two strong resisons for remaining outside: first, the very last thing the euro-zone needs is a member whose people will blame every economic failure on the euro; and, second, the euro-zone will benefit from credible competitor, dedicated to monetary stability and econom flexibility, but with a different model of central

The UK has waited and in times of peace and prosmay soon see a euro-zone in

turnoll. The right reaction is to wait - and wait again.

bank independence.

### LETTERS TO THE EDITOR

### No substitute for structural reform

From Mr Stefano Micossi Sir, Martin Wolf argues ("Is Laiontaine half-baked?", November 25) for closer policy co-ordination within the sure-zone. The argument seems to rest on two onestionable assumptions.

The first is that monetary so important that budgetary policies could not be "virtuous" unless there was some reassurance that "well behaved" governments would be rewarded by the European System of Central

In reality, a further decline in interest rates in Europe, say from 8 per cent to 2 per cent, is unlikely to revive growth and employment. This is stifled by high costs. closed markets for services, and rigidities across the field. The main lesson from many years of inflation and disinflation is that, in the longer run, monetary policy is not very important in determining real economic

2. It is loose because budgetary policy has remained tight over the last years. 3. Inflation will remain low as long as the public is convinced that the ESCB will not accommodate inflation. 4. With this policy mix, the exchange rate of the euro

also that the US economy is growing more rapidly than that of the euro-zone. The second assumption is that co-ordination of macropolicies is insufficient in

Europe. The stability and growth pact is there precisely to ensure the kind of policy coordination advocated. This should ensure that inflation remains low and monetary policy conditions accommo

As to the structural reforms, it is questionable whether further ordination is feasible under current structures or, indeed, desirable. Countries that have gone ahead alone with structural reforms found that there is an impori. Monetary policy is loose tant reward in terms of growth and employment.

Why try to co-ordinate this

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process? The truth of the matter is that expansionary budgetary policies (co-ordinated or not) can offer no quick fix to Europe's economic problems. Instead, private capital is abundant, and ready to flow to good opportunities, including investment in will not be too strong, given doesn't is that relative prices and other conditions are not right (notably market access. i.e. liberalisation). There is also evidence that the resction of private investment face of aggressive liberalisation of key network services (telecomm, transport, and energy), where potential

> The idea, therefore, that co-ordinated public spanding is the way out of the current situation is not only wrong but counterproductive. It risks being perceived as a substitute for necessary structural reforms.

European Commission, 15. Eue de la Science, 1050 Brussels

#### Clinton's new economic order is a mere political ploy

From Mr Steven Richman. Sir, It is the ultimate commentary on the small, self-absorbed man in the White House that his focus. remains on his endless campaign rather than governance and leadership ("Clinton considers a new conomic order" November 24). Having campaigned originally as the "domestic" president, having failed to achieve his keystone health-

"legacy", rather than You write: "It is harder, [Clinton] says, to earn such a reputation [for greatness]

care reform, he flounders for

anything to promote his

perity." Greatness comes when people are the means towards a more profound end, and not when they make themselves end and policy the

Perhaps if he focused on meaningful leadership based on a core philosophy instead of being cheesed with a vacuous "place in history" and furching from issue to issue. he might have achieved some of the promise with

212 Carnegie Centur New Jersey 08536.

#### Tame inflation outlook in Lithuania

enlightened Survey of Lithusnia (November 25), you forecast an upturn in inflation in 1999. In fact, due to a strict macroeconomic policy anti-inflationary and impulses stemming from the emerging markets's crisis,

inflation may continue to be lower than real growth, a trend that Lithuania set for the entire region.

Val Samonia Web professor of east-west University of Maryland,

Number One Southwark Bridge, London SE1 9HL We are leasn to endourage letters from readers workladds. Letters may be faced to +44 171-573 5959 (set fax to "fine"), e-mail: s.editor@fl.com Published letiers are pleo available on the FT wab etle, http://www.FT.com Trensletion may be available for letiers written in the mein international lenguages. Fax 0171 873 5938. Letters should be typed and not hand written.

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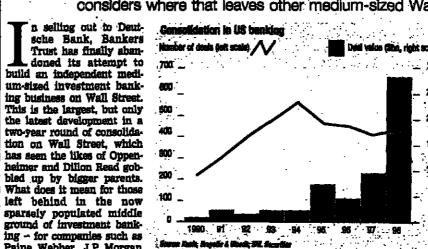
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## Shrinking middle ground

Now that Deutsche Bank has taken over Bankers Trust, Tracy Corrigan considers where that leaves other medium-sized Wall Street firms



"There are two views," Group, the parent of Salosays Sallie Krawcheck, mon Smith Barney, "needed financial services analyst at a much stronger equity capt-Sanford C. Bernstein, the US tal base so that next time [a market dislocation happens] it would be an opportunity not a catastrophe", as he put it recently. The merger crefore it can't work. The other is that there is business to ated Citigroup, one of the be gained." To judge from world's largest financial seron a few segments of the market can leave firms "Most brokerage firms are highly vulnerable to market viewing this combo not as a turmoil in those areas, as Bankers Trust, with its specialities in emerging markets and high yield, found in the third quarter, when it recorded a loss of nearly \$500m. As in the oil business, the advantage of sheer size is that it enables risk to

unhappy employees."

But are they right to do so? After all, the recent spate of mergers and acquisitions is itself a testament to the widespread desire for critical mass. At the outset of the latest phase of consolidation, the driving force was ambition. Investment and commercial banks were jockeying to join an emerging elite of businesses able to span the world's financial markets (the so-called "buige

Paine Webber, J.P Morgan

brokerage. "One is that

Bankers Trust presumably

couldn't make it work, there-

the opinions of those

involved, the latter view

seems likely to prevail.

threat but as an opportu-

nity," says Ms Krawcheck,

"(because there are likely to

bel unhappy clients and

and Lehman Brothers?

But recently, partly of markets and assets, because stock markets have been falling after more than a decade of gains, consolidstion has started to look more defensive. The middle ground, it is widely held, has become too small in a world of global contagion and financial-services super-

that is that investment banking is a capital-intensive business. When Sandy Weill approached Citicorp about a merger this year, it was partly because his financial services giant Travelers

range of financing options. "You have to have a core set of services that covers 70 per cent of what the client needs," says Michael McCaffery, chief executive officer of BancBoston Robertson Stephens. Otherwise, it is impossible to "help the client achieve the lowest cost vices groups. Concentrating of capital". Robertson Stephens, the San Francisco-based investment bank specialising in technology, is now owned by BancBoston which has a lending and high yield bond capability to complement Robertson's expertise in advising and raising equity for growth So who might be the next

be spread over a wider range leading candidate after its The emergence of commercial banks in the securities business has transformed perceptions of what

cial markets. Globalisation once appealed to investment markets can now all swing at once - as they did this summer after Russia's

not be able to offer the same Of course, every seller mentation."

'big' really is in investment banking

to go? Lebman Brothers is a

Paine Webber is another

medium-sized firms are often prize - but it has little to says Ms Krawcheck. "There chasing the same deals as offer in advancing invest- is no consolidation, there is bigger competitors, but may ment banking ambitions.

rocky ride during the recent Risk increased as a result market downturn. "They of the globalisation of finanbut they have made a little out on the new Citigroup, for money, which is better than banks partly as a means of a lot of firms," concedes Ms flattening the cycle of earn- Krawcheck. Still, analysts ings. The trouble is that worry about how the firm Perhaps not. Consolidation would fare in a prolonged is as old as finance itself, and painful bear market.

sche's acquisition takes the most aggressive buyer out of the market. Dresdner and Chase still appear interested, and others, such as the new UBS are seen as potential bidders.

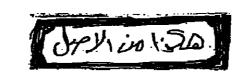
But the emergence of the big commercial banks as players - and buyers - in the securities business has transformed perceptions of what "big" really is in investment banking, Once. Merrill Lynch and J.P. Morgan were the giants of the business. But they are small in comparison with commercial banks. Chase, for example, views them both as potential targets. The appearance of banks such as Deutsche on Wall Street means that even Merrill Lynch and Goldman Sachs (which still says it plans to go public next year) can now be considered medium-sized. And they, of course, are announcing healthy profits. That suggests the middle ground might not be quite such a bad place after all. Still, in order to survive,

you have to have a strong balance sheet, plenty of capital - and probably a spread of businesses. Pure investment banks suffer disproportionately in a market downturn. Morgan Stanley Dean Witter, for example, did much better than its peers in recently because its earnings come from brokerage and credit cards as well as investment banking.

In short, while almost everyone believes that big has advantages in financial services there are doubts both about what "big" actually is and about how to create it. Concerns are growing about some of the giant mergers produced by boiling together very different sorts of company. The jury is still

So has Wall Street been transformed fundamentally? and while some firms disappear, new boutiques and spe-One reason for thinking default on its domestic possibility. It recently had cialist firms continue to bonds in August.

The other problem with has a large retail distribution of this business is the middle ground is that tion network – an obvious that more capital comes in." just combination and frag-



Bigger oil

Merger mania will not stop with Exxon-Mobil and others, says Daniel Yergin. But the petroleum

business is transforming itself into something new, not just recreating Standard Oil

**COMMENT & ANALYSIS** 

after said John

Archbold to his

board in 1911, as the tickertape

brought word to the headquar-

ters at 26 Broadway of the

Supreme Court's order to break-up John D. Rockefeller's

Standard Oil Trust. As the news

sunk in the directors sat in

stunned silence. It was Archbold.

Rockefeller's successor, who

broke the spell. He began to

amazement at the scale of the

new company that will be formed

from the \$75.3bn takeover of

Mobil by Exxon. In size, it over

shadows even the recent combi-

nation of BP and Amoco and cer-

tainly yesterday's news that-

France's Total is taking over

Petrofina of Relgiom. With so

much merger activity, much is

being made of the reconstitution

But beyond the inheritance of

oil lamps and the lineage itself,

there is not much continuity. The

1911 break-up occurred at a time

when kerosene for oil lamps was

still the oil industry's most

important product, the motor car

was only just beginning to be

something more than a curlosity.

and Standard Oil's monopoly was

already being eroded by the rise

By the time of the dissolution,

the largest successor company

Standard Oil of New Jersey (later

to become Exxon), was a ram

shackle refining outfit that did

not acquire its own major oil wells until 1919. The second larg-

est. Standard Oil of New York

(later Socony-Vaccinim, and still

later Mobil), was primarily an

international marketing opera-

In the intervening decades,

Standard Oil's successors vastly

expanded their investments and

unknown to the man who built

of Rockefeller's company.

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## E EDITOR FINANCIAL TIMES

Number One Southwark Bridge, London SE1 9HL Tel: +44 171-873 3000 Telex: 922186 Fax: +44 171-407 5700

Wednesday December 2 1998

## Choosing the WTO's leader

World Trade Organisation require sensitivity to domestic members today make their first stab at agreeing who should succeed Renato Ruggiero as the body's director-general. They have four candidates: Morocco's Hassan Abuyoub. Canada's Roy MacLaren, New Zealand's Mike Moore and Thailand's Supachai Panitchpakdi. All have respectable credentials, but none clearly leads the field. What should decide the choice?

Mr Ruggiero has successfully established the four-year-old WTO as an effective guardian of multilateral trade. His successor's overriding task will be to push the liberalisation agenda forward, at a moment when economic fragility, threats of profectionism and popular unease about globalisation are placing governments' commitment to open markets in question.

WTO members already plan Tame inflatie talks in the next two years on freeing trade in agriculture and services, which may develop into a full trade round. The new director-general can play a decisive role in shaping the outcome. But with few formal powers and a small staff, his personal qualities will be all-important.

These need to include administrative competence, a capacity to forge consensus through the judicious exercise of charm and toughness, and the ability to

political and economic realities in WTO member countries.

In the US, the demise of the old free-trade coalition means trade policy must seek support from a heterogeneous collection of political and popular lobbies. Some are deeply suspicious of the value of open markets and of the WTO. It will be even harder to win them over if slower US growth and a bigger trade deficit unleash protectionist pressures.

Meanwhile, many developing countries complain that they lack the administrative capacity even to fulfil commitments in the 1994 Uruguay Round agreement. They have a good case. The integrity of the global trade system requires their active participation. The next WTO head needs to fight for a bigger budget, to finance the technical assistance needed to

bring poor countries up to speed. But developing countries are wrong to insist that one of them should by right provide Mr Ruggiero's successor. Such demands smack of "Buggins' turn" logic. They also risk accentuating regional and economic divisions in the WTO and compromising its director-general's crucial role as impartial arbiter between all

members' interests. The appointment should be based solely on personal merit. It also needs to be decided quickly. command respect at the highest. How it is handled will be an levels of government. More than important measure of the WTO's ever before, the job will also capacity to tackle trials to come.

> activities on a scale that would simply have been inconceivable to Rockfeller. In fact, it would be hard to identify any of the original 1911 assets in Exxon or Mobil. A major recent source of profits for Mobil, for example, bas been its Indonesian liquefied natural gas project - a form of energy

> > Standard Oil. In contrast to Rockefeller's and production around the world. days, the industry today is highly diverse and competitive. It has become even more competitive since the oil price collapse in to go around. Senior executives 1986. Many state-owned compa- were being poached by other nies have been privatised - companies. The charges for drilincluding ENI in Italy and YPF ling ships, and other services tion profitably with prices at more easily the multi-billionin Argentina - and have become were rocketing. The industry \$15-16 a barrel. A decade earlier, dollar 20-year projects, such as Smaller companies have into another boom. And all this tion in similar areas might have that loom in the next decade, extended their reach; and new was less than a year and a half been nearer \$30. technologies have become widely ago. available, lowering the cost of

What is promoting consolidation in the contemporary oil industry is not some subconscious drive to recreate the ancient empire but an altogether different "damn thing": hard Oil was one of the first global

industries to be hit by the Asian crisis. For the past several years, the "prize" for the world petro leum industry was Asia. Until the second half of 1997, the rapid growth in consumption in that region was increasing prices and boosting spending on exploration Companies complained that geologists and engineers were in such demand, there were not enough

warm winter and increased world cent and stretching out the timmore than 40 per cent between brated. 1997 and 1998.

Yesterday, crude oil futures fell to under \$11 a barrel, in nominal terms the level of the oil-price bust of 1986. If inflation is taken into account, the price of a barrel of oil today is back to where it was before 1973. 25 years after the first great oil crisis.

The industry did a remarkable job of adjusting to the earlier restructuring and applying new technology, it brought costs down to a level that allowed oil e break-eyen point for explora-

Then came the Asian debacle. \$12, the economics of new pro- back to acceptable returns on Financial Crisis End?" November The region's demand had been jects become problematic. At capital.

expected to grow by almost 1m best, projects can break even. barrels per day in 1998. Instead, it The industry has responded by plummeted by 400,000 bdp. A cutting budgets by 20 to 30 per output added to over-supply. ing of new projects. The risk of Prices plummeted, falling by the business is being recali-

ergers and acquisimate form of costcutting, sometimes to be measured in the billions of dollars. Once the tumult of the merger passes, they enable companies to spread their costs over a larger base. The rapid evolution of information technology adds to the efficiencies and enables knowledge to be more widely diffused. The larger base enables companies to broaden their portcompanies to undertake explora- folio, manage risk, and assume Altogether, the savings enable \*Cambridge Energy Research But with oil prices at \$11 or the companies to work their way Associates. "When Will the Asian

are transforming the industry. Just as BP-Amoco encouraged "merger think" and generated the idea of the "super-major", so a combination between Exxon and Mobil is likely to foster other

By the time this period of extremely low oil prices is over, the landscape of the industry will look different. There will be further consolidations, some perhaps obvious, some likely to be surprises. And as the new combinations rationalise their operations, they will shed some holdings. That that will create opportunities in production for entrepreneurial independents. technology as the super-majors, to move up in scale. Parallel opportunities will be available to penny-conscious operators in refining and marketing.

The driving force for consolidation is not only lower prices but the expectation of an extended period of low prices. It is possible that the spectre of the 1930s depression might lead fearful central bankers and finance ministers to encourage global reflation over the next year. And if this were to happen, an economic recovery could lead to stronger commodity prices earlier than people might expect.\* But no management dare make that bet for their companies, At least, not

One aspect of the 1911 dissolution does echo today. The break-up of the Standard Oil nological change, with the arrival of the internal combustion engine. Rockefeller made his fortune as an illumination merchant, but at the time the Supreme Court acted, oil's main market was shifting from kerosene lamps to motor fuel. The 20th century has proved to be, as Henri Deterding, the mastermind of Royal Dutch/Shell, put it in 1916, "the century of travel". And, while the oil industry serves a multitude of markets, by far the greater part of its business has been to provide the fuel

for that travel. Billions of people around the world are still waiting for their first car. And the likelihood remains that that car will be powered by petroleum products. Oil prices may be at a historic 25-year low. But the historic role of oil is hardly over

The author is chairman of Cambridge Energy Research Associates, and wrote The Prize, the

## Québec quoi?

separatist Parti Québecois (PQ) many of his softliners to tell have won another five-year term in Canada's francophone prov-ince. But it was not the landslide predicted. Indeed his federalist opponents, the Liberals, won slightly more of the popular vote,

separation from Canada. But it the national average was a reward for Mr Bouchard's The impasse has proved impossince he took over in 1996. He should see this as a mandate to vein, talking much but doing little about severing Quebec's

links with the rest of Canada. Mr Bouchard beat the Liberal reasons. He proved a better camexactly popular. But many Québecois, who tend to a social dem- ily keeping Quebec in it. ocratic European rather than north American view of govern-

est's promised 30 per tax cut. hardline separatists to keep all Canadians.

Lucien Bouchard and his working for such conditions, and opinion pollsters they are against another referendum soon.

reform. All efforts to give Quebec more than the very considerable continue in the same pragmatic cultural and economic autonomy it already has have foundered on the requirement for unanimity among all 10 provinces. Mr Bouchard is now interested in joining leader, Jean Charest, for several other provinces in negotiating a new "social union" with Ottawa paigner. He pruned the budget on federal social spending. But deficit by cutting health and edu- such an arrangement would cation spending. This was not merely weaken the Canadian federation further without necessar-

Ultimately, Quebec separatism is an affair of the heart, and will ment's role, realised these cuts be resolved as such. In the meanwere less drastic than those that time, Mr Bouchard should focus would have followed Mr Char- on the day to day issues of restraining spending, cutting his Mr Bouchard also showed mas- province's excessively high taxes. terful ambiguity in promising and helping it catch up with the another referendum on separa- rest of the country. Quebec resition when there were "winning dents make up a quarter of Canaconditions" for it. This formula da's population. Improving their has the effect of encouraging his prosperity is in the interests of

The PQ victory means that the uncertainty of the 30-year impasse between English and French Canada continues. This has been bad for Quebec: its So Monday's election gave Mr economy has underperformed the Bouchard no clear mandate to rest of Canada and its jobless stage an early referendum on rate is nearly three points above

### Barrel of trouble for exporters

not only redrawing the policies. shape of the oil industry; oil-exporting countries are also rethink their investment strategies and alliances.

exploration and production.

Russia's penury this year was its populist leader of an attempted coup as the likely winner in where. Sunday's presidential elections

The collapse in oil prices is country's investor-friendly oil which had nationalised their oil Whereas oil-rich nations set one way or another, the leading

the terms of foreign investment. Gulf oil nations, no longer willgoing through their share of in the past, low prices mean they pain, and are being forced to will now have to make the deals risk themselves, seem prepared more attractive. There is great to reopen the door to foreign interest in exploring Brazil's investment One of the main causes of potentially large off-shore reserves, for example, but capital budgets away from loss of vital oil revenues. In the terms it is offering higher-cost areas, such as the Venezuela, the emergence of a companies are simply not com- North Sea, back to the Middle petitive with opportunities else-

has raised doubts about pressure on petroleum-exporting companies were expelled not so continuation of the countries in the Middle East, many decades ago.

industries by the mid-1970s. In ing or able to shoulder all the

This could shift the industry's East, the heartland of world oil reserves and the Eden from Low oil prices are also putting which international oil

| Oil and gas    | deals since 199         | 7                                |          |           |
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| Date ageousced | Companies               |                                  | Value    | Status    |
| Dec 1998       | Total .                 | PetroFine.                       | \$7,0bn  | Proposed  |
| Dec 1998       | Poten                   | Mobil                            | \$75.3bn | Proposed  |
| Nov 1998       | Seaguil Energy          | Ocean Energy                     | \$1.1bn  | Proposed  |
| Aug 1998       | BP                      | Amoco                            | \$48.2bn | Proposed  |
| Feb 1998       | Halliborton             | Dresser Industries               | \$8.9bn  | Proposed  |
| Oct 1996       | Kerr-McGee              | Oryx Energy                      | \$3_1bn  | Proposed  |
| May 1998       | Baker Hughes            | Western Atles                    | \$4.6km  | Completed |
| May 1998       | Arco                    | Union Texas                      | \$2.7bn  | Completed |
| Apr 1998       | ENd fourth tranche*     |                                  | \$5.6bn  | Completed |
| Jan 1998       | Union Pacific Resources | Norcen Energy Resources          | \$3.5bn  | Completed |
| Oct 1997       | Occidental Petroleum    | Elik Hillis Petrol -             | 53.7bg   | Completed |
| Jul 1997       | Burlington Resources    | Lookians Land<br>and Exploration | \$3.0tm  | Completed |
| Jul 1997       | Felcon Drilling         | Reading and Bates                | \$2.60m  | Completed |
| Mar 1997       | Die third transfer      |                                  | \$7,8bn  | Completed |

### Tax discord

Union is botting up, as exagger-ated rumours beighten the fears and fury of British Europhobes. Britain's position as the chief defender of unfettered tax competition appears increasingly threatened in the crossfire between this vociferous lobby and centre-left governments on the continent. But it must not allow a desire to be a "good European" to push it too far towards compromise - or into ceding its veto.

Those who want tax harmonisation start from an uncontroversial proposition. Implicit taxes on labour (now more than 40 per cent on average in the EU) are too high, and are an important cause of continental unemployment. Agreed. But the enthusi- fact that competition between fisasts for harmonisation argue; much more dubiously, that the cause is "harmful tax competition" between member states. This, they say, erodes the value of taxes which can be avoided by those who can relocate their busi-

tax take has risen from 27 per harmony, that everyone else cent of total gross national prod-

The battle over tax ucts to 41 per cent. By far the harmonisation in the European largest rises have been in social security taxes which now represent more than 20 per cent of GDP in France, 15 per cent in Germany and 18 per cent in Italy, but only 6 per cent in the UK, where many more people have private pensions.

Damagingly high taxes on labour therefore mainly reflect ballooning social security and pensions costs. Tax competition may be an irritant to the governments responsible, but it is not the main cause and must not be made the scapegoat.

The spectacular success of ireland's low corporation tax policles and of Luxembourg's banking regime undoubtedly cause problems for other governments, but they should not obscure the cal regimes will, over time, be beneficial for jobs and prosperity. Britain and the US, with relatively low tax regimes, have

enjoyed faster growth and lower unemployment than the continent of Europe in recent years. Clearly the tax regime is not the The evidence for this is thin.

The evidence for this is thin.

First, corporate taxes represent main one, but it would be foolish only about 6 per cent of the total to ignore it. Tax competition tax take in EU countries, so points accusingly to the bloated "unfair" competition could have social security budgets in contionly a small effect. Second, there nental European countries. They is little evidence that the EU tax must draw the right moral: to is unite evidence that the start slimming, rather than members will be seeking to base has been eroded by such start straining, tasks idea of parachute into top jobs over the practices. In the past 30 years the insist, from a perverse idea of parachute into top jobs over the

#### Brussels blight .

Nobody who turned up for the European Parliament's budgetary control committee vesterday expected a lively time - except perhaps Stefano Micossi, the European Commission's director-general for industry. Unusually for a very senior

Brussels official, Micossi appeared in a personal capacity - and complained about the power wielded by members of commissioners' cabinets.

The Commission's administrative structure, he said. was exposed to "potential". political interference unparalleled in member states' public administrations". The cabinet system encouraged people to maintain political connections in their home countries and to succumb to conflicts of loyalty Jaws dropped and many MEPs

whistleblower by banging their Micossi's remarks reflect a growing sense of dismay among the Commission's permanent staff that they are losing out in the promotion stakes. Three-guarters of the present commissioners are expected to stand down at the end of 1999.

and many of their cabinet

showed their support for the

Micossi's future career will be watched closely. His performance vesterday immediately triggered rumours that he might soon move on to another senior post - outside the EU bureaucracy.

#### Yankee doddle

Hoechst has bent over backwards to clinch yesterday's deal with Rhone Poulenc. The German outfit is bigger than its French partner, but the new supergroup – oddly named Aventis – will have its headquarters in Strasbourg and be incorporated under French

So as if German unions were not enough of a handful, Hoechst boss - and now Aventis supremo - Jürgen Dormann and his colleagues will have to learn the treacherous ways of French industrial relations.

The stylish Jean-René Fourtou, RP's boss who will be the new group's vice-chair, looked axed, even triumphant at the nuptials in Strasbourg, but the more pensive Domarin soon made clear he was in charge when he grabbed the role of master of ceremonies. So is the merger of "equals" a

German takeover dressed up to soothe French amour propre? Maybe, but it's an American who'll drive the biggest desk. Richard Markham, Hoechst's drugs chief in Frankfurt, is to head the merged group's

pharmaceuticals business, the biggest slice of the new Franco-German cake, So forget Franco-German rivalry in what's described as a very European company: the clear winner flies the stars and stripes.

#### **Bumpy ride**

**OBSERVER** 

Everyone knows that consultants are made of different stuff - and many thanks to Volvo for confirming it. The Swedish auto company says it needs to reduce its staff "by 5,300 persons and more than 700 consultants". Case proven.

#### Shell suit

Oil watchers with long memorles might not be surprised that rumours of a takeover of Belgium's PetroFina by its French rival Elf Aquitaine turned out to be wide of the mark.

There was much takeover talk in 1993 when it emerged that Elf had 4.9 per cent of the Belgian group. But that was under the presidency of Loik Le Floch-Prigent, and the shares were sold after the installation of current chairman Philippe Jaffré.

Jaffre might still have something up his sleeve, and Shell's step back from a more refined relationship with Texaco. giving the UK-Dutch combine some freedom of manoeuvre, has provoked speculation about a Shell-Esso hook-up.

Shell's trigger finger must be

itching after recent expansion by rivals Exxon and BP, though it doesn't have their high share price to help in empire building and after all these years Royal Dutch Shell is itself still an unconsummated merger which might find a ménage a trois too

clumsy.
If Shell and Elf do eventually cuddle up together, would they

#### Orban clearance

Hungarian prime minister Viktor Orban is apparently none too pleased with Jozsef Torgyan, the agriculture minister who heads the Smallholder party, the junior partner in the ruling coalition. Orban is all for ousting directors of state companies appointed by the former Socialist-Liberal coalition, but

draws the line at replacing them with Torgyan's relatives. So the PM's office was not best pleased when Beatrix Hingyi, Torgyan's daughter-in-law, got a seat on the board of national carrier

Maley and her mother turned up as a supervisory board member at the national lottery company. Torgyan's son and his wife's cousin also have plum jobs with state corporations.

A quiet chat at the weekend brought results. Beatrix and her mum have resigned. Nothing to do with nepotism, of course, it was all the fault of the "unethical press campaign" against them.

### Financial Times 100 years ago

#### Lake Huron Copper Mine Lord Douglas of Hawick, who took such a prominent part in the development of the gold resources of Western Australia

in the early days, has just returned to London from Ontario, where he has been devoting his energies to opening up some copper propositions on Lake Huron. This section of country, which is practically virgin ground, consists of immense deposits of low-grade ore, which, on account of the water facilities. can be worked at a very cheap and profitable rate.

#### 50 years ago

S. Africa's Problems Brakpan, S. Africa, Dec 1. Mr. Nicholas Havenga, South African Minister of Finance and leader of the Afrikaaner Party, said here to-day at the party's Congress that it would be undesirable and dangerous to force a decision on the Union's fundamental colour problems without due regard to a clear expression of the will of the people. "The Government must and will on the basis of apartheid, urgent problems of the relationship between white and black which accumulated while the previous Government regarded racial segregation as dead."

#### THE LEX COLUMN

## No gusher

Look past the superlatives and Exxon's \$75bn takeover of Mobil is just a very big in-fill acquisition. Regulators permitting, Mobil will expand Exxon's upstream presence outside North America, beef up its gas reserves and bring it some nice highmargin lubricants.

But the strategy of the new giant is not changing one whit; like the rest of the oil industry, it will continue to cut costs and squeeze assets in pursuit of higher returns. It will simply have more assets to

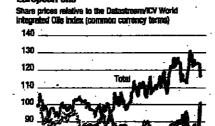
For shareholders, this lack of imagina tion is good news because it should equate to clarity of focus. Instead of pretending it is changing the world, Exxon Mobil merely wants to grind out a higher return on capital – which was 15 per cent on a blended basis in 1997. And given that Exxon is much larger - the split is roughly 70:30 on most measures - and its management will be firmly in charge, the promised efficiencies will be pushed through swiftly.

That said, \$2.8bn of cost savings in two years looks unambitious compared with the \$2bn announced by BP Amoco, which has half the revenues. Taxed and valued on a multiple of 10, these amount to \$18bn \$16bn of which has been handed to Mobil's shareholders via a 25 per cent premium to its stock price since the deal was first mooted. To collect their rewards Exxon shareholders will have to wait for the management to eliminate low-return

#### Total/PetroFina

And the animals went in two by two. Hurrah? Certainly not for Total shareholders, who have watched their highlyrated paper plunge on the acquisition of Belgium's PetroFina. Once again, management twitchiness has resulted in a deal that will destroy rather than create shareholder wealth. Netting out yesterday's divergent moves in the two companies' share prices - the much larger Total down 12 per cent and PetroFina up 18 per cent - suggests value destruction close to

What of the promised \$350m annual savings seen by 2000? Net of tax and oneoff restructuring costs, these should be



forma market value. Since the savings have not been properly explained, the suspicion is that each company could have achieved the bulk of them without needing to merge at all. And as Renault's Vilvoorde experience showed, political obstacles to French companies' restruct-

uring in Belgium can be formidable. Justifying the 37 per cent premium paid to PetroFina shareholders looks uncommonly difficult. But then, no one seems to be trying very hard. Simply getting higger than arch-rival Elf looks to be an important driver behind the deal.

Neither wants to concede the whip hand in the negotiations for that much-mooted in-market merger. And Albert Frere, the Belgian financier, has taken full

#### Hoechst/Rhône-Poulenc

Hoechst and Rhône-Poulenc must think that the grander the joint venture, the more likely it is to work. Production at their US blood products unit, Centeon, was halted in August because inspectors found numerous breaches of rules - not a good omen for their combined management ability. The losses fed through into Hoechst's third profits warning of the vear. Rhône-Poulenc has also admitted it. will miss its earnings growth target.

So is the two-stage merger an elaborate protection plan for two weak companies? Not completely. By slimming down to their more attractive drugs and agrochemworth around \$1.5bn in today's money, or ical cores, they have become more es than 7 per cent of Total Fina's pro exposed targets in these deal-hungry sec-

CONTENTS

tors. Their shares are not expensive enough to offer the protection enjoyed by. say, Zeneca. Moreover, both were making progress, although Hoechst's was painfully slow. Nevertheless its shareholders should not celebrate sharing the eventual benefits of the Hoechst Marion Roussel integration. The 50:50 split favours the French company, which is rather smaller

The saving grace would be a conviction that the two could achieve their slipping targets more easily together. Discouraging signs are a management structure that smacks of ego-protection and the unneces sary diversion of setting up a brand-new HQ. In theory, the merger has pluses notably in agrochemicals and drugs marketing - but delivery is the key.

Lonrho's African progeny has hogged the limelight for six months but the former parent, now stripped down to its platinum, coal and gold operations, has been uncharacteristically quiet. Since September Lonrho's shares have rallied by 46 per cent, and now the rumour-mongers think a big deal is afoot. There are two theories around. First, that Lonrho is close to unblocking the impasse over Gencor's 23 per cent stake in its platinum division. Second, that Ashanti Goldfields, in which Lonrho has a 33 per cent stake, might buy

The latter story looks fanciful. Ashanti has too weak a balance sheet for such a dilutive move, and any change of control at Lonrho would let Gencor's Impala subsidiary take full control of the platinum business. The platinum thesis is more promising. The European Commission ruled that merging Impala with Lonrho Platinum would be anti-competitive, and the result of Impala's appeal is due by

The betting is that the Commission will not be over-ruled. But with no guarantee that Gencor will simply give up and sell out, Lourho still needs to find other ways to get big. There is now no strategic merit in the minority share in Ashanti. This could be sold, on any gold price rally, to finance precious metal acquisitions where it can take full control. If Lourho cannot find the deals to gain critical mass, some one else should take it over.

#### EUROPEAN DEFENCE INDUSTRY LIKELY TO HAVE TWO COMPETING GROUPS

## France forced to accept merger of BAe and Dasa

Potsdam and Alexander Nicoll in Paris

France has reluctantly dropped its. hostility to a merger between British Aerospace and Germany's Daimler-Chrysler Aerospace (Dasa) which would initially exclude Aerospatiale

The French government had been fighting a rearguard action to secure a trilateral merger as the best way to achieve much-needed consolidation of Europe's aircraft and defence At yesterday's Franco-German

summit in Potsdam, France was

obliged to accept the argument of

Gerhard Schröder, German chancellor, that he could do little to stop two private companies merging. However, President Jacques Chirac and Lionel Jospin, the French prime minister, warned that bilateral initiatives could destabilise

France resigned to an Anglo German weeks - that will lead to the credeal, the stage appears set for the ation of Aerospatiale Matra. This emergence of two competing forces: a merged BAe and Dasa on the one hand, and the French combination. announced in July, of Aerospatiale with the Maira defence interests of France's Lagardère group.

No company is willing to give details of intensive discussions which involve all the big European defence companies - including Gen-eral Electric Company of the UK and Thomson-CSF of France - and cover a range of options for the cross-boxder consolidation of the industry, as demanded by their governments.

BAe and Dasa are believed to be close to an accord but are not thought to have agreed on terms. Both have expressed their desire for a three-way deal including Agrossa-tiale, but are opposed to the frame. having any significant stake in or-

reorganisation of the European influence over a merged company.

defence industry. Paris, London and Lagardère, Aerospatiale and other
Bonn together demanded last companies are understood to be near December a tripartite consolidation a series of agreements - likely to be

will involve the French state reducing its holding to below a majority, and the initial public offering of 20 per cent of the new group in the

spring.

French officials believe the greatest efficiencies can be achieved through the creation of a group combining British, French, German and mily, other comp towards privatisation have demon-strated the French government's itment to this, officials say.

France world want a British/Ge man initiative to be seen as an initia-mediary step. It would also seek to guarantee the strategic position of Aerospatiale within the Airbus civil success composition, of which BAe and Bass between them have 57 per man initiative to be seen as an inter

The respective roles of Aerospatisle and British Aerospace will be a central part of discussions at the tomorrow and Friday.

### Tokyo stock exchange system crash halts trading in government bonds

By Ju<del>lie Hess</del> in Tokyo

The Tokyo stock exchange's attempt to reinforce its position as Asia's largest financial centre took a knock yesterday when its computer system crashed, halting trading in Japan's benchmark government bond con-

Hitachi, the electronics conglomerate, has just completed an upgrade of the system aimed at making it more user-friendly.

The failure - the second in a fortnight - is an embarrassment for the stock exchange. The combination of the trading halt and a recent increase in the supply of bonds led to increased volatility and price distortions yesterday. Hedging sales increased as dealers who had bought four-year government notes found it

impossible to sell them to investors. The yield of the benchmark 10year JGB bond increased by 10 basis points to 1.14 per cent compared with Monday - a large rise com-pared with the yield two weeks ago of 0.85 per cent.

The system failure caused an immediate sell-off in bonds, but some investors argued the price decline was the beginning of a new trend. Stuart Baker, managing director at Barclays Capital Japan, said: "Given the Japanese fiscal position now and next year, the decrease in bond prices does not come as a

Mr Baker pointed out that supply had risen recently and that a further increase could be expected in view of the potential rise in government expenditure and falling

Data released yesterday showed that tax revenues in October had

fallen 14 per cent. On Tuesday, the volume of the 4-year note auction reached Y900bn. much higher than the usual Y400bn

to Y500bn. Following Hitachi's systems upgrade early last month, the stock exchange has been struggling with bond futures transactions. Hitachi has pledged to increase the number of staff assigned to oversee the sys-

"Under the guidance of the Tokyo stock exchange, we are working to recheck the fetures and options trading system at the earliest possible time in order to improve the quality of the system," Hitachi said in a

Hitaciti won the contract to supply the system in competition with several other suppliers, including Fujitsu, Japan's largest computer

Although the system has caused problems since it was introduced, the stock exchange said it had no intention of replacing it in the near

foture\_ The complexity and amount of time it took introduce a new system meant this was not a practical option, the TSE said.

The system was introduced in part to take advantage of a faster processing rate and the ability to view a wider range of more information, the

## **Features** International News Asia-Pacific News Arts. Arts Guide World Trade News Analysis . 16.17 Crossword Puzzle

#### **Companies & Finance** European Company News

Asia-Pacific Company News ... American Company News .. International Capital Markets

## Markets

Bond futures and options Short term interest rates Currencies . Money markets FT/S&P-A World indices World stock markets recorts World stock market listings

London shara sarvica FTSE Actuaries UK share Indices Recent issues, UK . Dividends announced, Ut Managed funds service FTSE Gold Mines index

Survey

Directory of online services via FT Electronic Publishing

#### FT WEATHER GUIDE

Norway and Sweden will be mild but cloudy and windy with rain or sleet in the north-west. Finland and the northern Baltic States will be blustery with snow flurries. A strong ridge of high pressure will give dry and settled conditions to most of eastern, central and northwestern Europer. It will be very italy, Greece and the Iberian Penin sula will be changeable with show

Five-day forecast

North-west Europe will stay dry and settled but will be cold with night frosts. Central and eastern Europe will become more unsettied ead on Friday and Saturday. Scandinavia will turn much colder with severe frost setting in by the



**PAWEATHERCENTRE** 33000



As this Adrranz-built train hurtles at 200km/h through 18km of tunnels between Oslo and its new Gardennoen airport. its passengers could suffer uncomfortable, ear-popping, pressure changes and continuous noise. In fact, they glide peacefully along thanks to Woodville Polymer Engineering, part of forsheda Polymer Engineering.

Woodville's modular passageways, with their integral steel floor and twin-walled polymer bellows structure, provide an airtight link between carriages. Their exceptional noise and thermal insulation helps to create the quietest rail travel in the world. As Woodville also provides the rail gangways for the new Heathrow Express, many more airline passengers

can now train to the plane without strain. Forsheda Polymer Engineering is one of TI Group's four specialised engineering businesses, the others being John Crane. Bundy and Dowty. Each one is a technological and market leader in its field. Together, their specialist skills enable TI Group to get the critical answers right for its customers. Worldwide.



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**FINANCIAL TIMES** 

## **COMPANIES & MARKETS**

WEDNESDAY DECEMBER 2 1998

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Tanzania's golden opportunity After decades of false starts, obstructive governments and price uncertainty, Tanzania's vast gold potential stands its best chance of being realised. In a continent where South Africa and Ghana have dominated exploration,

optimism is high that east Africa's sleeping giant will offer some fantastic prizes, and that the government will involve foreign investors. Page 30 Sterling and dollar in the stocks Sterling weakened against the D-Mark as sharp drops in the UK equity market spilled over into the currency markets. The pound took its cue

from Monday's hefty correction in the Dow to fall against European currencles, the move in turn rebounding on the dollar and pulling it lower against the D-Mark, Page 29 Battle of the benchmarks hots up

A new index ~ Euronia - will step out on January 4 to challenge Eonia as the benchmark for fixing euro overnight indexed swaps. Euronia -Euro overnight index average -- was launched by the UK-based Wholesale Markets Brokers' Association. The rival Eonia is being promoted by some 60 banks, mostly from countries within the euro-zone. Page 28

Internet lifts stock exchange The rapid growth in share price internet services for private investors has lifted the London Stock Exchange's income, putting it in a "strong finan-cial position" ahead of its planned alliance with the German bourse. Despite an 8 per cent fall in income from trading following a cut in trading fees, the exchange raised its total income by 8.5 per cent to £76.2m (\$125.7m) in the six months to September 30, Page 25

False dawn for Malaysian investors

KLSE Composite 800 ....

Malaysia's retail inves tors are giddy with delight about a Kuala Lumpur stock market that has almost doubled in value in three months. Little matter that the rally has been orchestrated in an attempt to earlich a corporate sector hit hard by Asia's financial crisis. The advance has

followed the imposition of capital controls and a ban on foreign investors receivating profits from the sale of shares for a year, which has trapped billions of dollars in Malaysia. Page 40

New Index for Toronto The Toronto Stock Exchange and Standard &

Alcatel

Avenda

BMW

CNBC

HSBC

PTL.

JDC.

Canal Plus Capita

Poor's were set to announce last night the companies listed on the new SAP/TSE 60, a large capitalisation index expected to become a berometer for Canada's leading securities market. The index, which alms to provide greater international exposure to Canadian companies,

COMPANIES IN THIS ISSUE

20 Kin 20 LSE

19 Morgan Stanfe

24 NEC 25 Nomure 28 PDVSA

19 PetroFina Contact Energy 25 Rhodla Cortecs 24 Rhone-Poulenc. Degussi

DirecTV Dow Coming

9 Telepiú Filtronic Ford Franca Telecor GRE

1, 18, 23 19 Unique Pub Company

CROSSWORD, Page 30

MARKET STATISTICS

34, 35 Emerging Market bonds 28 FISE Actuation share indicate 22 Short-term het retes 22 Shock (parliste ut e glence 37 US interest retes 36 World stock merkete

## Hoechst and Rhône-Poulenc begin merger

Biggest life sciences group created

David Pilling in Strasbour and David Owen in Paris

Hoechst of Germany and Rhône-Poulenc of France yesterday agreed to merge their pharmaceuticals and agro-chemicals businesses to create the world's biggest life sciences company. The new group, to be called

Aventis, will have sales of \$20bn and 95,000 employees. making it the world's secondbiggest pharmaceuticals group - behind Merck of the US and the world leader in crop protection and animal health. The merger will lead to annual cost savings of about \$1.2bn by cutting jobs and overlaps, said Jürgen Dormann, Hoechst chairman, and Jean-René Fourtou, Rhône-Poulenc chairman. Mr Dormann will be chair-

Both declined to say how many jobs would go, but cuts are likely to be substantial in spite of expected resistance from workers in France and Germany, where about 40 per cent of the new group's employees are based. The company will have headquarters in Strasbourg in

France and will be incorporated under French law. It will immediately report in euros. Yesterday's announcement marks the first stage of a twostage merger that will end in a full-scale link-up between Hoschst and Rhone-Poulenc

within three years.

During that period both groups will sell off their remaining non-life sciences assets. For Hoechst, this means the disposal of interests in industrial gases group Messer, Wacker Chemicals and Clariant, the specialty chemiman of the new group and Mr cal group. Rhône-Poulenc will



its specialty chemicals business. After the disposals. Hoechst and Rhone-Poulenc will be folded into Aventis. Aventis will be run by a four-man management board. As well as Mr Dormann and Mr Fourtou this will comprise Igor Landau from Rhône-Poulenc, who will have special responsibility for pharmaceuticals, and Hoechst's Horst

Waesche, who will oversee the

Aventis will have a 10-member supervisory board headed by the only big pharmaceuticals Marc Vienot, the French banker. There will be no unions represented on the supervisory board, marking a break with German tradition. Executives said the merger would give both companies added sales and marketing muscle and beef up their R&D capabilities. They emphasised that Aventis would make

merger involving a French company this week. There is strong speculation that Sanofi and Synthélabo, the second and third biggest French drugs groups, are poised to announce a tie-up in a deal expected to exclude Sanoff's beauty products unit.

Observer, Page 17; Lex, Page 18;

### Nomura seeks IPO of \$1.4bn UK pub chain

By David Biackwell and John Willman

Nomura International, the Japanese investment bank that became the IIK's largest pub landlord last year, is to put most of its pubs into a company that will seek a stock market quote in three years. Unique Pub Company will have 2,500 tenanted pubs with assets of £850m (\$1.4bn) and profits before interest this year of £80m-£85m. Its managers expect the initial public offering to value it at Clbn. putting

et for ind "Aiming to float [list] in 2001 s a realistic timescale," said Giles Thoriey, Unique's chief executive. "We are not in a hurry. In any case, it would be inappropriate now given the market volatility.

Nomura will be left holding 1,100 pubs from the Inntrepreneur and Spring Inn estates. They include several hundred with tenants in dispute over their leases in a saga Nomura inherited from the previous owners, Grand Metropolitan

brewing group. The sale of many remaining pubs is almost impossible pending court hearings.

The new company will be the UK's largest tenanted pub group. The IPO will allow Nomura to sell its stake, and the company to adjust its gearing. Mr Thorley said it had no plans for further acquisitions, though it might be interested in smaller managed houses that brewers and other operators no longer wanted. All the Unique tenants have

if in the FTSE 250 and making signed up for a new supply ent introduced in March to replace the previous tle to Scottish Conrage, the brewing arm of Scottish & Newcastle. The Supplyline agreement allows licensees to choose from 140 products produced by 28 suppliers including 20 regional brewers. This means Unique will get its income from rents paid by

on beer with the brewers.

### Japanese Construction Group's Failure fuels sector fears

expansion in the US a priority.

## JDC seeks bankruptcy protection owing \$3.3bn

Worries about the crisis in Japan's construction sector intensified following the collapse of JDC, a medium-size contractor heavily involved in golf courses.

JDC filed for protection from its creditors with Y408.72bn (\$3.3bn) in liabilities. It was the second largest bankruptcy by a Japanese construction company since the second which collapsed with Y511bn in liabilities in July 1997, according to Teikoku Databank, a credit research agency.

The sector has been hit by a collapse in land prices and the contraction in construction lemand as a result of the Japaese recession. The turmoil in Japan's financial sector has tenants and by taking a cut also had an impact on the from the discounts negotiated country's construction companies, frustrating attempts to clean up balance sheets.

Taichi Sakaiya, Japan's eco-

namic planning agency minis- ations with creditors, the debt ter, said: "I think they [construction bankruptcies] will increase somewhat."

Kokudo Doro, a subsidiary of JDC, yesterday also filed for protection according to Japanese bankruptcy law. It did not reveal its total outstanding liabilities, but Teikoku Databank estimated its debts at Y16.84bn.

JDC said mounting debts s in particu affiliated companies' failed property investments had forced it to apply for legal pro-tection from its creditors. The Tokyo-based contractor had Y117.78 in financial obligations, Y77.22bn in debt guarantees, and Y57bn in corporate bonds, as well as Y151bn in

hidden capital losses. "We have considered various schemes and combinations over the past year and a half. including a debt-forgiveness plan . . . But in our final negoti- Future from the rubble, Page 20 A new leaf, Page 21

was too large," said Ichiro Komiya, vice-president. But JDC said its main bank had not withdrawn support.

The group's main funding sources include Mitsui Trust and Banking, which holds a 4.2 per cent stake, Tokai Bank and Asahi Bank. Mitsui Trust said that it did not expect to recover Y25.1bn of the Y30bn in outstanding loans to JDC from large projects - golf but that the loss would not ending next March. Tokai Bank said it was uncertain

> ing loans would be repaid. Trading in JDC was suspended, but the stock closed at Y65 the day before. Shares in Mitsui Trust tumbled 6.1 per cent, or Y10, to Y155, while Tokai Bank gained Y4 to Y827. Construction stocks overall slid 1.19 per

whether its Y36.3bn outstand-

### **Dow Jones** says losses at CNBC may go on until 2002

By John Gapper Media Editor

Losses at the international operations of CNBC, the television news channel specialising in financial markets, are likely to continue for two years longer than projected because of the Asian economic crisis.

Dow Jones & Co, the financial publishing group that holds 50 per cent of CNBC's operations in Europe and the US, believes that the operations will only break even in 2002, rather than the turn of the century.

Peter Kann, chairman of Dow Jones, which publishes the Wall Street Journal, said in an interview the expecta-tion that CNBC would break even internationally by 2000

"may stretch a year or two". Dow Jones last year merged its international television arm with that of CNBC, a cable network owned by General Electric. As part of the deal Dow Jones gains licensing revenues and a share of revenues from

CNBC in the US.

The deal led to Financial
Times Television losing its programming contract with CNBC in Europe. It enabled the US companies to cut joint losses on international television from about \$100m last year to about \$50m this year. Losses are expected to halve

again in the coming year. Mr Kann said the two partners would "almost certainly create market-leading channels" in Europe and Asia, and losses had been contained at an acceptable level.

Mr Kann said Dow Jones had demonstrated that its television operations were of value to investors. "We accomplished what we set out to do. although there have been some detours and difficulties."

Because Dow Jones gains licnue from CNBC in the US, it has US television earnings with which to offset its international losses. This should allow it to break even in television overall by 2001.

Dow Jones has been concentrating on its Dow Jones newswire and electronic publishing since selling Dow Jones Markets, its loss-making real-time financial data service, for \$510m this year.

BARRY RILEY

## Weighing up the risks

Ever so cautiously the WM Company, the UK's leading investment performance measurement consultancy for pension funds, is rolling out a risk measurement service.

has taken the UK so long. Lucky British pension fund trustees have until now been largely sheltered from the largon of active risk, information ratios and interquartile risk ranges, even though such concepts have already been widely adopted by fund managers.

The generalist approach (I will not call it amateur) to the staffing of trustee boards in the UK has been an obstacle. Risk analysis, WM apologises in its introductory brochure, is "too mathematical, too :

Investment professionals would mostly lap the subject up, but WM is clearly worried about baffling and alienating

Incidentally, the other UK measurement specialist, Caps, is also exploring risk, probably on a rather more ambitious. and detailed basis, through Risk Reporting, a joint venture with Barra, the California-based risk

modelling consultants. For its part, WM bas collaborated with the Edinburgh risk consultants Barrie & Hibbert. WM is not going so far as to devise risk-adjusted returns. They might be volatile, and

anyway are too controversial

focusing on relative risk. so that trustees can understand their overall level of risk egainst their benchmarks.

Within that, the risk is aliocated across different as classes. An analysis of "prospective risk" compares a fund's risk with that of the relevant WM universe of shnilar funds, and splits it hetween policy (or asset allocation) and stock selection One basic question is whether the amount of risk is

appropriate in the context of

performance targets. The median total fund risk in the WM50 Universe of the . biggest funds seems to be quite modest, at about 1.5 per cent, this being the standard deviation of the individual's . relative return against the universe.

Policy risks are quite high, because of customised henchmarks, but stock selection risks are low, probably because of reliance on indexation.

Smaller funds in the WM2000 Universe often run lower policy risks, because of pressures to run with the herd Stock selection risks in these smaller funds are higher, but in aggregate the interquartile range (from the 25th to 75th quartile) is more tightly bunched, and the median total

risk is perhaps 1.4 per cent.

Arguably the range is 100

set an objective to beat the

benchmark by 1 per cent a year then the relative risk

narrow. If a manager has been

should be at least 2 per cent This is because it is unreesonable to assume an information ratio of more than 0.5, the latter ratio being defined as the relative return against the benchmark divided by the standard deviation of this relative return. It measures the manager's skill in adding value.

When informed about the risks the trustees can be more ffective at monitoring. It is interesting to speculate about past few years had they realised that increasing risks were often being incurred by leading external managers like Cartmore and Phillips & Drew, and even Mercury.

These three managers have together lost mandates worth £9bn net over the past twelve months, while index trackers have won 28hn. Now, it is said, there is a risk-averse retreat to the benchmarks that will soon show up in the risk data.

The assessment of risks will be a challenge for generalist trustees. Risks cannot simply be added together, partly because of correlations. And there may be much more risk in, say, a small allocation to the Pacific ex-Japan region, as managers discovered in 1997, than in a

much bigger divergence from

the benchmark allocations between UK equities and UK

bonds, which are more highly correlated. So risk has finally arrived. Or rather, it was here all the time. Ignorance was bliss.



### **Electricity Generating** Authority of Thailand

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ABN AMRO

**Barclays Capital** 

Goldman Sachs International

Lehman Brothers

Caboto Holding SIM

Landesbank Sachsen Girozentrale

J.P. Morgan Securities Ltd.



## Nippon Credit Bank plans merger talks

Nippon Credit Bank, the troubled Japanese bank, yesterday said it was intending to open negotiations with Chuo Trust, the long-term credit bank, about a possible merger. However, it insisted an agreement had not been

A merger would come as no surprise, given NCB's financial analyst at HSBC financial weakness and the increasing competition cre-

reforms. But the choice of Chuo Trust as a partner surprised analysts yesterday.

"This would be very strange. You would be putting two wholesale banks together which are undercapitalised at a time when the days of wholesale banking are drawing to a close," said Brian Waterhouse,

ated by Tokyo's "big bang" shares was temporarily require careful monitoring. unlikely because of the halted during morning trad- The group expects to write ing. In the afternoon, Chuo Trust fell 0.9 per cent to Y535, while NCB was unchanged at Y174.

NCB is burdened by huge bad or doubtful loans. The Financial Supervisory Agency, the banking watchdog, is expected to show that NCB has outstanding loans worth Y3,200bn (\$26bn) to borrowers in default, in cor-

off Y735bn of bad debts during the current year. It has predicted parent company pre-tax losses of Y100bn in the year ending March 31.

Chuo, which is predicting pre-tax profits of Y20bn for the full year, has 52 hranches - about the same as Mitsubishi Trust, but only a quarter of the revenues. Analysts said cost syner

could ask for additional funds from the government banking system.

organisations to cut costs.

However, NCB and Chuo,

which are facing pressure on

their capital adequacy ratios,

Analysts said the combined groups would have revenues of Y295bn and insufficient scale to invest in

reluctance of Japanese nology. "Frankly, the combination would be sub-scale and makes as much sense as the tie-up between Sumitomo Trust and Long Term Credit Bank, before the latter was nationalised. If Chuo which has set aside and NCB then linked up Y50,000bn to bail out the with a big city bank, then it might all make sense," said

Mr Waterhouse. Chuo has traditionally had close ties to Tokai Bank and

### Ford aims for 10% of sales in Asia

in Tokyo

Ford aims to corner 10 per cent of car sales in the Asia-Pacific region Within 10 years by expanding in China, Japan, Thailand and India, the US car and truck

group said yesterday.

It currently has about
1 per cent of region's car

Wayne Booker, Ford vicechairman, called the current financial crisis "a window of opportunity" and said he expected "long-term sustainable growth" in the region despite the sales collapse this year.

Sales in most countries in the region, including Japan, were 50 per cent down on last year's level as a result of the financial turmoil, he

Ford is to revamp its operations in Japan by adjusting its product mix and moving sales outlets to more populated areas.

Ford also planned to launch a car in late 1999 with Mazda, the Japanese carmaker in which it owns a 33.3 per cent stake.

Mr Booker declined to comment on the collaboration with Mazda, except to say that the groups were considering common platforms and other types of integration to avoid product duplication and allocate company resources more efficiently.

In the Japanese market the group recognised the overwhelming dominance of domestic manufacturers. Toyota - it has 40 per cent of the market".

"If we have a few percent age points that will be good enough for us", he said. Ford has been increasing its investments in Asia in

recent years. In July, it began production of the Ranger, a pick-up truck, at its factory in Ray-

ong, Thailand. It is also building a car plant in India and assembly facilities in the Philippines both of which are expected to go on line next year.

Ford is also trying to increase its share in a joint venture in China with Jiangling Motors, a local

However, it has met considerable difficulties, particularly after the failure of its bid for Kia, the Korean carmaker, which filed for bankruptcy last October.

#### NEWS DIGEST

SEMICONDUCTORS

### AIG and Ericsson unit to buy 80% of Alphatec

American International Group and an investment subsidiary of Sweden's Ericsson have agreed to pay \$40m for an 80 per cent stake in Alphatec Electronics, the Thai computer chip maker. The deal is subject to creditors' approval of a restructuring plan that calls for more than two-thirds of Alphatec's debt to be written off.

The capital injection and debt restructuring were unveiled yesterday at a creditors' meeting. Some creditors, Krung Thai Bank among them, asked for amendments and the meeting was adjourned until December 8, when creditors must vote on the proposal.

Alphatec is the first Thai company to attempt a reorganisation under the country's new bankruptcy law. It has about \$373m in unpaid debt and PricewaterhouseCoopers the debt restructuring planner, said that without a creditors' agreement, the group would run out of money at the end of the month and could casse operations.

#### **COMPUTERS**

#### Acer sees January GDR issue

Acer, the Taiwanese computer maker, said yesterday it expected to issue its long-planned global depositary receipts in January following the improvement in market conditions. At yesterday's closing price of T\$42.50, the issue would raise up to T\$8.5bn (US\$262m). Its shares hit a year-low of T\$28.80 on September 1.

"Now that the market has stabilised, with Talwan's govemment adopting a bullish attitude and investor confidence returning, we feel it is a better time to launch the GDRs in January," said Lee Yipin, corporate finance and investment management director.

In May, Acer's shareholders' meeting authorised its board to issue up to 200m shares in GDRs in 1998. Mr Lee said the funds raised would be used for working capital, especially for Acer's many overseas operations. Pricing of the GDRs would be decided after a series of roadshows in the leading financial centres in January. The co-lead underwriters will be ABN Armo Bank and Nomura Securi-

Mr Lee said Acer's business outlook was improving. although he did not go into details.

Analysts said slowly improving semiconductor prices would narrow losses for its Acer Semiconductor Manufacturing unit, which is expected to report a T\$5bn loss in 1998, Reuters, Taipei

#### **NEW ZEALAND**

#### Brierley rejects Disney offer

Brierley Investments yesterday rejected a revised offer from Disney family interests, which were seeking a management and equity relationship with the international group. Briefley directors said the offer was "not desirable or necessary" in view of the Brierley's improved financial position and its dilutionary impact on its capital structure. Sharmrock Capital Advisers, a US investment company

for Disney family interests, holds 2 per cent of Brierley. Shamrock attacked Briefley directors over the use of the term "lack of cultural fit". Mr Gold said this was simply a code word for prejudice towards foreigners and was inappropriate for a company with 75 per cent of its assets outside New Zealand. Terry Hall, Wellington

#### MACHINERY

### **Taichung wins loan extension**

Taichung Machinery has been granted a six-month extension of its expiring loans, approval of new loans worth T\$250m (US\$7.7m) and continued access to T\$2.2bn in revolving credit, the finance ministry said yesterday.

Taichung is the first listed company to be granted such relief by the state-led crisis relief panel, which was formed by the finance ministry and central bank during a spate of corporate stock payment defaults that shook Taiwan's stock market in early November. The panel, which includes leading creditor banks,

granted a six-month extension of expiring loans or approved new loans for four smaller unlisted firms a week ago, but declined to identify them. Reuters, Taipei

#### SECURITIES

#### **DKB Securities**

Dai-Ichi Kangyo Bank has asked it to be made clear that a story in the Financial Times on December 1 under the headline "DKB Securities forced to suspend operations" refers to Dresdner Kleinwort Benson Securities, not to DKB Securities or any other part of the Dai-Ichi Kangyo

Incorporated with limited liability as a societe anonyme under the laws of France office: 75. Avenue de la Grande Armee 75016 Paris

> Notice of meeting to holders of FRF 2,000,000,000 8.5 per cent. Notos due 2000 (the "Notes") ISBN : XS 9041850214

Notice is hereby given that a General Meeting of the noteholders of the above mentioned issue is convened by Automobiles Peugeot in the offices of Peribas, 3, rue d'Antin, 75002 Paris on 17th December, 1996 at 9.30am (Paris time) for the purpose of considering the following agenda:

Election of Representatives;

Definition of the Representatives' powers.

Subject to the decision of the general meetings of Automobiles Peugeot, PCA and PCI and Société

approval of the transfer of some assets of Automobiles Paugeot to Paugeot Citroen Automobiles (PCA) and; approval of the transfer of some assets of Automobiles Peugeot to Process Conception Ingénierie (PCI) and; approval of the transfer of some assets of Automobiles Peugeot to Societé Commerciale Paris Franche-Comté.

Filing of the documents relating to the General Meeting.

All noteholders are emittled to participate in, or be represented at, the General Meeting. However, in order to be able to attend the Meeting, a noteholder may deposit his Notes with the Fiscal Agent or with a Paying Agent at its specified offices set out below, or such Notes may be held, to the satisfaction of the Fiscal Agent or such Paying Agent, to its order by Cadel Bank or Euroclear, for the purpose of obtaining a voting certificate, appointing prodes or giving voting instructions in respect of the General Meeting until five days before the time fixed for the Meeting, but not thereafter.

Fiscal Agent and Principal Paying Agent: Banque Paribas Luxembourg 10A boulevard Royal, L-2023 Licembourg

Paying Agents;

3. rue d'Antin, 75002 Paris Citibank NA, London

5 Carmelite Street, London EC4Y OPA Citibank NA, Brussele 35 evenue des Arts, B-1040 Brussels

## Japan's contractors try to build future from the rubble

JDC was small enough to fall through the net but its fate reflects industry restructuring, writes Alexandra Harney

Japanese construction company. yesterday of how the turmoil in the banking system is spreading to the enfeebled construction

As Japanese banks struggle with staggering levels of bad and problem loans in their portfolios, contractors and builders are facing sharply lower demand and mounting losses on property and equity holdings and from unprofitable projects.

Coming together, analysts argue, this means there are more bankruptcles on the horizon for Japan's construc-JDC's failure comes only

weeks after Aoki, a second-

creditor banks to forgive losus worth Y200bn (\$1.6bn) as part of a restructuring The potential consequences for the Japanese economy, which is already

mired in its worst post-war recession, are severe. The construction sector accounts for about 10 per cent of the total workforce. and with the unemployment per cent, massive job losses analysts say.

he failure of JDC, the and the economy as a whole. enough to fail." says Mark Banks are caught in a difficult position - not only financially, but also politi-

cally and socially. While the social implications of bankruptcies are clear, the liquidity crisis in forced banks to tighten their lending standards recently.

To make matters worse, construction companies have historically enjoyed generous backing from Japanese politicians, who use public works spending to stimulate economic growth.

These pressures on the banks have helped prevent the failure of larger construction groups so far, ana-

JDC's workforce of 1,725 tier contractor, asked its people and turnover of about Y300bn are a fraction of the size of the biggest companies in the industry, such as Obayashi, Taisei, Shimizu, and Kajima, which employ over 10,000 people each.

The smaller companies do not enjoy the political connections and wield the corporate clout of the construction giants and, as a result. they are less likely to convince creditors to agree to a rate already at a record 4.3 debt forgiveness scheme.

"JDC was an example of a 1998 was 440 per cent, well impact on consumer demands company that was small above the 227 per cent aver-

Extraordinary General Meeting

of Shareholders of Securitas AB (publ)

Notification is hereby given to the shareholders of Securitas AB (publ) to attend the Extraordinary General Meeting of Shareholders to be held at 2.00 p.m. Thursday, December 17, 1998, in the

be recorded in the Share Register maintained by the Securities Register Centre

(Värdepapperscentralen VPC AB), not later than Monday, December 7, 1998; and

notify Securitas AB of their intent to participate in the Meeting, not later than 4.00

p.m., Monday, December 14, 1998, by mail to Securitas AB, Box 12307, SE-102 28

Stockholm, Sweden, or by telephone + 46 8 657 74 00 or telefax +46 8 657 70 72. When

giving notice, the shareholder should state name, registration number (or equivalent),

address and telephone number. Proxies and other powers of attorney shall be presented

to the Company well in advance of the Meeting. Receipt of notification will be confirmed

by Securitas AB's forwarding of an attendance-card, which is to be presented upon

To be entitled to participate in the General Meeting, owners of shares registered in the name of

a trustee must have their shares temporarily registered in their own names. Shareholders who

have trustee-registered shares should request the bank or broker holding the shares to request

owner-registration, so called voting-right registration, prior to Monday, December 7, 1998.

3. Election of one or two persons to attest to the correctness of the minutes.

The Board of Directors' proposal that the General Meeting should resolve to sell all shares in Securitas AB's ("Securitas") wholly owned subsidiary TeleLarm Care AB

("Care") to the shareholders of Securitas. It is proposed that shareholders of Securitas

holding up to and including 1,000 shares will be offered the opportunity to acquire ten shares in Care and those bolding in excess of 1,000 shares the opportunity to acquire one

Care-share for every one hundred shares or part thereof held. No fewer than ten shares may be acquired by any shareholder. The shares will be offered at SEK 98.50 each,

which is their estimated fair market value. Shares of series A in Securitas should entitle

the shareholder to acquire shares of series A in Care, and shares of series B in Securitas

Schörling, in accordance with an undertaking by them to acquire shares not acquired by

other shareholders of Securitas. The terms and conditions of any such sale should

The Board of Directors' proposal that shares in Care not acquired by the shareholders
of Securitas under the offer, be sold to Securitas' main shareholders, Säkl AB and Meller

The above proposals by the Board of Directors are conditional upon their being supported by

The complete proposals by the Board of Directors will be available at Securitas AB's head office

in the Securitas Building at Lindhagensplan 70, Stockholm, Sweden from Thursday, December 10, 1998, and will be sent to shareholders upon request.

Stockholm, November 27, 1998

a majority of nine tenths of the shares and votes represented at the General Meeting.

4. Examination of whether or not the Meeting has been duly convened.

should entitle the shareholder to acquire shares of series B in Care.

correspond to the terms and conditions of the offer.

Adjournment of the Meeting.

Securitas Building at Lindhagensplan 70, Stockholm, Sweden.

Shareholders who wish to attend the General Meeting must

The following matters will be dealt with at the Meeting:

2. Preparation and adjustment of the voting list.

1. Election of Chairman of the Meeting.

Notice of attendance, etc.

Agenda

Brown, construction analyst at ING Barings. The company's problems

centred around its aggressive expansion into golf courses in the 1980s and ment's inability to restructure once these businesses became unprofitable after the bubble burst, analysts

DC, like many others, began to use developers to build golf courses when demand for golf club memberships in Japan surged in the 1980s.

However, developers often used membership dues to cover construction costs, so when golf course membership prices plummeted in the early 1990s, developers were unable to meet their financial obligations.

companies to absorb both which had borrowed heavily to finance their operations. and the golf course proper-

This forced construction

This loaded construction companies' balance sheets with liabilities. Mr Brown estimates that

to file for legal protec-Akihiro Tsujioka, JDC president, said the decision was made at a board meet-JDC's net gearing at March ing in the early hours yester-

and ultimately its loss of

credibility with creditors

as well as other companies

contractors.

age gearing ratio of 25 other JDC shares would be delisted in March 1998, the Analysts said the group's Tokyo Stock Exchange said attempts to lighten its debt burden over the past 18

lthough most of the management is expected to resign, JDC executives and Kazuhiro Murata, their lawyer, said they had had left it no choice but great expectations for the

"I believe it will definitely be rebuilt...and I am

reorganisation.

company's growth after its

become, says Mr Tsujicka

Hyundai completes takeover of Kia

By John Burton in Seoul Hyundai Motor, South Korea's largest carmaker, yesterday completed its takeover of the bankrupt Kia vehicle group in a Won1,180bn (\$947m) deal for

a 51 per cent stake. The acquisition will Inchon Iron & Steel 15 per expand Hyundai's domestic cent, and Hyundai Financial market share to between 65 per cent and 70 per cent and make it the world's 10th largest carmaker, with a capacity of 2.5m vehicles. Samsung Motors, its Korean

competitors. Hyundai, which won an international auction for the group in October, will pay Won841.5bn for Kia Motors and Won336.6bn for Asia Motors, Kia's commercial vehicle subsidiary, to creditor banks by next March.

In addition, it will pay Won1.700hn in debt owed by Kia to creditor banks by 2008 Won4,700bn in other liabilities, mainly owed to Kia's subcontractors. Kia's creditors last week agreed

Kia's debt principal. Five Hyundai companies will pay for Kia, with Hyundai Motor responsible for 40 per cent of the purchase price, Hyundai Heavy Industries 20 per cent, Hyundai Industry Development and Construction 15 per cent,

Services 10 per cent. Chung Mong-gyu, the Hyundai Motor chairman, said business normalisation plans for Kia will be ahead of Daewoo Motor and unveiled soon. Analysts expect this to include wage and job cuts and consolidation of suppliers.

Kia, which halted production last week because of a sharp fall in car sales, resumed operations vesterday after the takeover deal was concluded.

Hyundai will also seek foreign investors for Kia, including Ford Motor of the US, which was Kia's biggest must assume shareholder until its takeover by Hyundai. But analysts are sceptical whether foreign carmakers will be interested in acquiring a

## to write off Won7,390bn of minority stake in Kia. NZ set to privatise

The government is seeking sale of Contact, which produces 27 per cent of the country's electricity.

commercial advisers for the of increasing private enterprise involvements.

sold its 51.6 per cent share-It plans to sell 60 per cent holding in the Auckland public and 40 per cent to NZ\$400m and last week's what it termed a "corner- float of government-owned stone" shareholder who office blocks in Wellington would provide expertise to raised NZ\$120m.

#### electricity generator By Terry Hall in Wellington New Zealand strong interest in Contact

government plans to sell Contact Energy, the country's second biggest electricity generator, in a public flotation that could realise more than NZ\$2bn (\$1.1bn), making it the biggest stateowned asset to be sold this

The float, which is likely to be scheduled just before the general elections, is designed to capitalise on a series of offerings in recent months that have proved extremely popular with small investors.

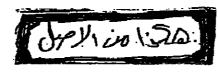
through a share issue to the International Airport for

the company to the benefit ABN Amro predicted

shares from the investment community and the public. The bank valued Contact's assets at NZ31.57bn, including government equity of NZ\$883.8 million. It had operating earnings of NZ\$158.5m in the year to September 30. However, ABN Amro said

the company's future earnings prospects could be limited by greater competition in the energy sector after the government split ECNZ, its other electricity company, into three divisions and because

The government recently



gate oil grot

Bogatin resigns as . <sup>IBM</sup> Magnex preside

Application of the state of the

A hist chairman appointed

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FINANCIAL STABILITY INSTITUTE

securities regulators are continuing.

tion of alleged money laundering activiti

John Heimann, chairman of global financial institutions and a member of the executive management committee of Memil Lynch, will retire on February 1 to take up a position as the first chairman of the Financial Stability Institute.

The institute was established by the Bank for International Settlements earlier this year to promote better and more independent supervision of the banking, capital markets and insurance industries. It is a joint initiative of the

BIS and the Basie committee on banking supervision. William McDonough, president of the Federal Reserve Bank of New York and chairman of the Basie Committee said: "As a respected former regulator and a senior executive of a major financial institution, [Mr Heimann] has extensive knowledge of both supervisory challenges and financial market practices." Tracy Corrigan, New York

#### COMPANIES & FINANCE: THE AMERICAS

## CANADA COMPANIES SELECTED

## TSE, S&P set to launch new index

By Scott Morrison in Toronto

The Toronto Stock Exchange and Standard & Poor's were preparing yesterday to announce the companies listed on the new S&P/TSE 60, a large capitalisation index that is expected to be a barometer for Canada's leading securities market.

The index, which will be part of S&P's global basket of investable indices, aims to provide greater international exposure to Canadian companies and enhance liquidity. It is set to be launched on December 31.

Richard Carleton, TSE vice-president of index and market data services, said the TSE 60 would be the basis for futures and options instruments, as well as index participation units. The TSE and S&P were also considering sector-related units - for example, natural resources - based on S&P's global index.

The new index initiative is part of the TSE's strategy to the premium, or discount increase market liquidity given that position-taking and fend off competition

from US stock markets. It is the first product to emerge from a partnership announced this year between the exchange and S&P, which manages the widely followed US benchmark index, the S&P 500. Mr Carleton said the partnership enables the TSE to leverage S&P's international exposure to market Cana-

By Raymond Colitt in Caracas

assembly is today set to

approve a strict budget for

Petròleos de Venezuela, the state oil company, with only

minimum investments to

maintain current production

There will be no expan-

sion of capacity next year.

It's an austerity budget,"

said one person in the indus-

try familiar with the budget

proposal. "Given the oil

price and the country's fiscal

situation, there is no money

For 1999, PDVSA foresees

Venezuela's

capacity.

to spare."

**MAGNETS** 

calls seeking comment.

could resume trading.

Edward Alden, Toronto

dian companies to global

Bill Riedl, president of Fairvest Securities, said inclusion in the TSE 60 would be important to companies, given the growing interest in index investment funds by pension funds and other institutions. A large percentage of investment capital will be strictly focused on that group," he

The TSE 60, designed to be a large market capitalisation portfolio index, will feature companies selected on liquidity, sector leadership. share float and fundamentals such as earnings performance and debt to equity ratio.

Investors have for several weeks been taking positions in anticipation of the new index, hoping to reap a listings premium or avoid a discount to a company's share price if it is not included.

Dealers said it was imposprior to yesterday's reduce the impact.

Mr Carleton said the TSE 35 and the TSE 100 would continue to be calculated due to demand from investors holding a number of derivative instruments tied to the indices, such as equity side deals and other over the-counter instruments with fixed terms.

average price of \$11.50 for the Venezueian basket of

crude oils, but "may revise

this figure downward" the

PDVSA has been hit hard

this year. It has made pro-

duction cuts of 525,000 b/d under an agreement with

bringing its total fiscal pay-

ments to \$7.45bn in 1998.

Some observers question

whether PDVSA will be able to paý Bs1,000bn in divi-

dends next year, as stipu-

lated in the government's

Expenditure and produc-

tion cuts from the collapse of

oil prices hit not only next

2008, rather than the forecast

1999 budget

source said.

The budget proposal leading oil-producing nations

tional costs and \$4bn in capi-tal investment, of which an estimated \$3.6bn would go to

maintain current production government's budget deficit,

an average production of year's output but also

3.17m barrels a day. That is PDVSA's long-term expanslightly up from this year's sion plans. The company

average of 3m b/d, but far now expects to reach produc-

below the 3.8m b/d the com- tion capacity of 5.2m b/d in

NEWS DIGEST

pany had originally pre-dicted for the end of this 6.2m b/d in 2007.

**Bogatin resigns as** 

YBM Magnex president

The president and chief executive of YBM Magnex international, the troubled Canadian magnet maker under police investigation, has resigned. YBM said late on Mon-

day that Jacob Bogatin, who headed the company since it first began trading in Canada in 1994, had also resigned

as a director. Wesley Voorhels, YBM chairman, declined to comment on the resignation and Mr Bogatin did not return

YBM has been suspended from trading on the Toronto

Stock Exchange since last May, when its Pennsylvania. headquarters was raided by the FBI in a police investiga-

YBM's institutional investors, headed by Mr Voorheis, ousted the company's board of directors in September.

The new chairman promised he would quickly get to the bottom of the controversies plaguing the company so it

But Mr Voornels has said nothing about the company's future since that time, and investigations by police and

Strict budget for

state oil group

general

## Turning over a new leaf

Publisher Dow Jones plans to build on the strengths of the Wall Street Journal after a tough year, writes **John Gapper** 

or Peter Kann, chairman strengths in other fields was rumours about a possible and chief executive of put to analysts late last sale or merger, Dow Jones hisher of the Wall Street for optimism towards the end of a difficult year.

Despite the dominance of and plans for the repurchase the Wall Street Journal in US financial markets, and some successful initiatives such as the Interactive Edition of the Journal, the prestruccie. Ownership of the loss-

making Dow Jones Markets real-fime financial information group depressed its shares early in the year, and provoked criticism from some dissident members of the controlling Bancroft family. There was a temporary respite after the company succumbed to pressure and sold Dow Jones Markets for \$510m in May, but this lasted only until the summer. Then fears of a reces sion in advertising caused renewed weakness.

Mr Kann's strategy of trying to close the book on the nast and looking towards a future in which Dow Jones sible to calculate the size of replicates its newspaper

Dow Jones & Co, pub month. His presentation followed the announcement of Journal, the past few weeks the early retirement of Kenhave provided some grounds neth Burenga, president of the company and chief executive of Dow Jones Markets,

Mr Kann, a former editor and reporter who has had to defend his abilities as a busivious months were a ness executive has learned a lesson in humility from his troubles. "The management has a high degree of selfimposed pressure to do bet-

> His presentation laid out a three-year plan to expand Dow Jones' electronic publishing businesses. and improve margins in rations such as Ottaway, which publishes 36 commu nity newspapers.

ter," he says.

Family control of Dow Jones has given Mr Kann at least one comparative advantage in laying long-term plans for the group. Despite vocal criticism from two family members, he believes the Bancrofts have little interest in selling.

Despite

appears set in its ways. "Even the critical members of the family were not trying

are not going to sell the company, or merge," he says, In a sense, Dow Jones has of \$500m of the company's been a victim of its own success. The dominance of the Journal - a competitor of the Financial Times - in the US has made it hard to find another related activity that

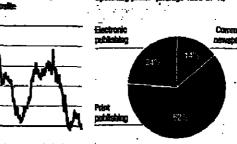
to sell the company, and we

can produce comparable profits. Dow Jones Markets was a failure and the company has lagged behind in areas such as marketing its stock market indices. It is now focusing more strongly on electronic publishing, both in newswires and specialist

fastest-growing The operations are the Interactive Edition of the Journal, which has 250,000 paying subscribers on the internet, and Dow Jones Interactive, an online business information division that reaches 600,000 users via terminals. Mr Kann insists there is

Dow Jones Share price relative to \$

such as Bloomberg



into the same trap as Dow want to say that our infor-Jones Markets, which proved mation has value," Mr Kann less nimble than competitors

"The core of this content is proprietary, and we're serving the same kind of market we serve with our print papers. It is a business we have a fair amount of to CNBC, and gains a share of CNBC's additional adverexperience in, and have been reasonably successful at."

The company is still find-ing its way with the interactive Edition of the Journal, since it is among the first publishers to charge for access to a newspaper on the internet. The subscription charge is still well below the price of the printed Journal, which costs \$175 a year.

The Interactive Journal costs print subscribers \$29 a year, and others \$59. "Over ing. little risk of these kinds of time, it is our goal to bring occasional publishing operations falling the rates close to print. We

Dow distributing the Journal's content over television via a joint venture with CNBC the cable network owned by NBC. It licenses information

tising revenue. As part of the same agree ment. Dow Jones and NBC combined their loss-making international television operations, which have been hit by Asian turmoil and are together likely to lose about

\$50m this year. "A year ago, our television side was viewed as something of a problem, but I don't think it is seen that way any more. It is quite significantly profitable in well in that kind of the US, and we are reducing environment.

But as Dow Jones' experi shows, none of these othe ventures matters as much to its share price as advertising in the Journal. Shares dropped from \$58 in late July to \$42 in mid-October or signs of weakness The sale of Dow Jones

vulnerable to the advertising cycle by reducing subscrip tion revenues. However, Mr Kann insists the strength of the Journal protects it somewhat from

the cycle. is a recession, well OK, who does best and who comes out in the best shape? If there is a down market and custom-

# Suppose you met a banker who took the time to talk with you?

n this fast-changing world, Geneva's Private Bankers still Lebelieve that the prime task of a bank is to serve its clients... effectively. And face to face. Technological progress, in our view, is above all a means of gaining time - time we can devote to our clients. For we define progress as being ever closer, ever more responsive to those who place their trust in us, wherever they may be. Which, indeed, is why we are bankers - Private Bankers.











## GENEVA'S PRIVATE BANKERS

LIBERTY - INDEPENDENCE - RESPONSIBILITY

IN GENEVA:

DARIER HENTSCH & Cie

LOMBARD ODIER & Cie

MIRABAUD & Cie -

## Exxon, Total deals turn up peer pressure

Confirmation of Exxon and Mobil's \$75bn deal and the takeover of PetroFina of Belgium by French group Total has shaken the world oil industry. Financial Times writers analyse the details and examine the prospects for the industry of restructuring seen so far

- BP Amoco, Exxon Mobil

uniformly effusive about

their prospects, the recent

history of the sector shows

that oil companies have also

been consistently "more

comfortable making mis-

takes with others", as one

The herd mentality runs and Total Fina - have been deep through the world's oil no surprise that two of the three merger/takeovers to occur in the integrated than a decade were

announced on the same day. European oilman wryly Although each of the com- noted this week.

live up to their billing, there tages for those who move is little doubt that they will alter the competitive landscape of the industry.

For those companies that have yet to take the plunge, there will be growing pressure to make a move.

Part of that pressure will. be external. Investors and analysts will want to know whether managements have assessed the pros and cons of mergers and takeovers in light of such a rapid and fundamental shift in industry

Shareholders may also worry that companies could be too late in jumping on the merger bandwagon, Analysts rejected - suggests it may

whether the deals concluded say there are clear advangrow harder for companies always have been questions the company that best fits to impress shareholders. its strategic commercial and financial aims. The BP Amoco deal was welcomed in large part because the

> from the start. The fact that some analysts were yesterday questioning several aspects of the Total Fina deal - especially because it takes Total, the lead company, into areas such as base chemicals and US refining and marketing which it had previously

industrial logic, and the

potential savings, were clear

early, especially as the domi-industrial logic at the end of nant partner can focus on the merger wave with which and Texaco of the US to drop

With each announcement there are also fewer combiagements involved to argue that any proposed link-up is Shell was poised to strike on There is even a danger

that, in the frenzied atmosphere, some managements avowed policy of pursuing may consider deals that in more limited geographic or more placid times would have been pushed aside. Raised expectations can

also complicate the conduct of more routine business.

Ends of chapters in Belgian

corporate history often seem

to coincide these days with

ends of phases in the career

of one man, Baron Albert

bank, bid for Banque Brux-

elles Lambert, Belgium's

number three bank, a year

ago, Mr Frère's agreement to

sell his 37 per cent cleared

When France's Axa-UAP

moved in May to take full

control of Royale Belge, Bel-

gium's second biggest

insurer, it was ending a joint

And this week, the media-

shy financier's agreement to

sell his 30 per cent stake in

PetroFina opened the door to

Mr Frère, this latest deal is

most symbolic. PetroFina

was, until recent years, Bel-

gium's biggest company by

market capitalisation, its

premier industrial asset, and

- alongside holding com-

pany Société Générale de Belgique (SGB) – the busi-

ness every Belgian family

The appointment of the

for the 72-year-old, after sev-

First, he used the family

nail business as a basis to

become uncrowned king of

the Belgian steel sector, selling his steel interests to the

From 1982, as head of Bel-

gium's second biggest hold-

ng company Groupe Brux-

elles Lambert (GBL), he was

the wheeler-dealer interna-

tional financier who built a

complex empire of cross

holdings with stakes in busi-

nesses spanning finance,

Only the unhappy episode

energy and leisure.

state in the late-1970s.

eral incarnations.

held shares in.

control deal with Mr Frère.

the way for the takeover.

Profile Baron Albert Frere

week by Royal Dutch/Shell

a much bigger scale. But the Anglo-Dutch market segment joint ven-market segment joint ven-tures, while at causiders long-promiseds, radical changes to have these. The merger wave may also

Although there would divert the attention of execu-

From nails to oil

and media baron

to find arguments about asked about the decision this "not yet in the mood", according to one executive Elf Aquitaine, the other big plans to merge their Runo French oil group that had pean refining and marketing been in the bidding for networks, the timing of the PetroFina reminded key French oil group that had nations remaining, making announcement created a staff in the wake of the Total it more difficult for the man-swirl of speculation over Fina deal that mergers were whether it signalied that not the only way to develop the business, and that factors such as price and indus-

group looks set to stick to its elements in any of its deals. to remain that way as long as oil prices stay depressed.

trial fit would be decisive But for the time being, it is unlikely that any big oil company can pretend that it The industry is transfixed by consolidation, and is likely

producers their next moves

By Robert Corzine and

European

European oil companies were yesterday assessing their next moves in the aftermath of the Exxon-Mobil deal in the US and Total's takeover of PetroFina of Bel-

Elf Aquitaine, which had been mooted as the favoured partner for PetroFina, decided against a bld because the Belgian company was too expensive and its refining, marketing and chemical operations in the US clashed with Elf's strategy, according to executives.

"It's always good to take part in the trend of the moment," said Bernard de Combret, head of Elf's refining and marketing division.
But it is also very important to follow the strategy you have defined."

Elf also says it does not believe companies of its size will be at a disadvantage in competing for upstream exploration and production deals with the likes of Exxon Mobil and BP Amoco.

Elf has not ruled out a possible merger, but executives are likely to insist that any combination be based on sound industrial and commercial factors.

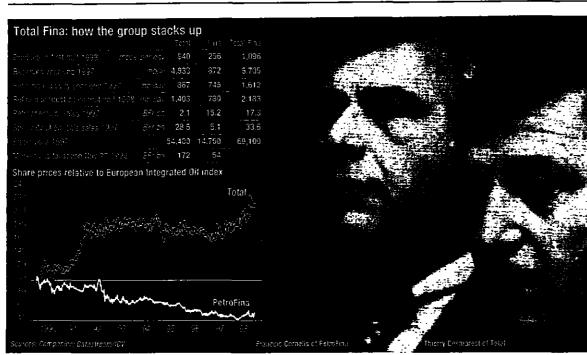
Italy's Eni oil and gas group, Europe's fourth largest, is not currently involved in any merger or acquisition talks. The company, 37 per cent owned by the Italian government, is however, pursuing contacts with other oil groups on possible deals and partnerships involving specific product areas or geo-

graphical sectors. It is seeking ways to enhance its European downstream refining and marketing activities. However, tentative talks with Royal Dutch/Shell on an eventual European downstream deal are understood to have gone

nowhere. The market pressures behind the latest flurry of mega-mergers are also forcing a wave of mergers and cost-cutting among Russia's high-cost and poorly structured oil companies. These moves are expected to accelerate as Russia's wider financial crisis deepens

In Russia's case the impact of lower world oil and eas prices has been magnified by the collapse of the Russian banking system, and especially those such as Oneximbank, which is linked to Menatep, linked to Yukos Oil, which were part of

financial industrial groups. Rouble devaluation has given partial relief to oil exporters but exports are hampered by pipeline capacity constraints and the prospect of higher export taxes while devaluation has exacthe French utility group, think he is probably the kind erbated the longer-term costs and difficulties of rais-



PETROFINA ALLIANCE WILL CREATE EUROPE'S THIRD-BIGGEST OIL COMPANY

## uestions arise over cost

and David Owen in Parls

will create the world's sixth- of this week - had made a biggest oil company, and the formal offer. But it is underthird biggest in Europe, with stood to have been in combined market capitalisa- advanced discussions with tion of almost \$40bm.~

It will, in the words of until late last week.

Thierry Desmarest, Total Although Mr Desmarest chairman, create a "new insisted yesterday Total's European oil major" with combined sales last year of almost \$54bn, 69,100 employees and reserves of 5.71bn watchers barrels of oil equivalent.

But not everyone was rejoicing yesterday. Shares in Total fell 12.3 per cent from FFr705 to FFr618 amid fears it was paving too much for the Belgian company.

The premium is (antastic for PetroFina shareholders,

valued PetroFina at erupted in mid-November. BFr19.482 per share, or per cent premium to Friers, with a positive impact day's closing price of on cash flow per share from

That was well above ana- per share from 2001. lysts' estimates of BFr18,000 on Monday - suggesting that (\$352m) a year within three bid from Elf Aquitaine, its particularly through group-

French counterpart. It was unclear yesterday whether Elf - around which speculation centred until the start

Some market suggested the **Total-PetroFina** deal could trigger others

analyst with Crédit Lyonnais minute", it is thought to have begun serious talks Based on Total's closing with PetroFina only when share price last Friday, its media speculation around an nine-for-two share swap offer Elf-PetroFina merger Mr Desmarest insisted the BFr456bn (\$13.07bn) - a 36.7 deal was good for sharehold-

next year, and on earnings Synergies worth FFr2bn

years had been identified,

ing together administrative research and development, European refineries, rationalising distribution, and centralised purchasing. The Total chairman insisted job -PetroFina's shareholders -losses would be-limited to-a-

"fèw dozen".

undertakings to swap its ing and remaining with spefinancier Baron Albert Frêre 🛮 is a U-turn in strategy.

- as well as 10 per cent held financial services group.

extended to all PetroFina idly consolidating oil sector. shareholders. The new group, Total Fina, will be quoted on the Paris, Brussels, London and New York stock exchanges. Mr Frère, who will hold

almost 9 per cent of the enlarged group, will become co-vice chairman to Mr Desmarest. Francois Cornélis. PetroFina chief executive, will be deputy chief executive of the new group. PetroFina was advised by J. P. Morgan with Paribas,

and Total by Credit Suisse

First Boston.

functions, integrating sceptical of the benefits of the tie-up, and expressed improving the functioning of concern that it took Total into petrochemicals, a sector it has previously avoided. Mr Cantelaube of Crédit

Lvonnais Securities said. -"Total's strategy was to develop upstream quite fast Total has irrevocable while trying to reduce refinshares with the 30 per cent ciality chemicals. By buying of PetroFina held by Com- PetroFina, the refining arm pagnie Nationale à Porte- has become a very big part feuille and Electrafina - of the group and chemicals both controlled by Belgian will become more cyclical. It

Some market watchers by Tractebel, the Belgian also suggested the Totalenergy group, and 1 per cent PetroFina deal could trigger by Fortis, the Belgo-Dutch others. Total itself would become a more attractive The offer will then be alliance partner in the rap-

Belgian analysts pointed to the possibility that Tractebel could sell its remaining 3 per cent stake in Total, and use the money for a longmooted merger with its own 40 per cent owned subsidiary, Electrabel.

That, of course, needs backing from Suez Lyonnaise des Eaux, the French utility group which owns 50.3 per cent of Tractebel, which has so far been lukewarm towards such a merger - and whose single biggest shareholder is Albert Frère.



with Drexel Burnham Lam- will leave him with about 8 bert, the Wall Street junk per cent of Total, and bond pioneer that collapsed in 1990 - and in which GBL iron nail merchant's son had to write off a BFr3.2bn from Charleroi to the chair- (\$91m) stake - marred the

manship of the 70-year-old record. former Compagnie Finan-Chairmanship of Petrocière Belge des Pétroles (tele- Fina provided relief from the Swapping his stake for one

in Total starts a new phase share swap with SGB. In recent years, Mr Frère again, as media magnate, bourg's CLT-UFA, Europe's class companies. But the biggest commercial broad-caster, and a stake in tition became worldwide."

France's Canal Plus. But a deal two years ago pointed the way to Mr Frère's next phase. He sold a 26 per cent stake in Tractebel, the fast-growing Belgian energy group, and used the proceeds to buy 11.5 per cent of Suez Lyonnaise des Eaux, gaining a seat on the board.

another board seat. Associates say Mr. Frère is moving from leading positions in Belgian companies, to smaller stakes in interna tional groups.

"Suddenly you find you ( graphic code: Petrofina) on Drexel debacle. Mr Frère's are number one in Belgium, May 11 1990 was his proudest GBL had become largest but the market is no longer shareholder in PetroFina in Belgium, it is Europe," said 1989 through a complex Didier Bellens, GBL's managing director, yesterday. "We were happy to be sharehas reinvented himself holders of Royale Belge, again, as media magnate. PetroFina, Banque Bruxelles with control of Luxem- Lambert these were world-

> Some analysts suggest the moves are also an effort to simplify his sprawling empire, before passing it on to his son Gérald and daughter Ségolène.

But, suggested Mr Bellens, rumours of Mr Frère's retirement were premature. "] of person who will never Now the PetroFina deal retire," he added

ing foreign capital.

**CONSOLIDATION COMPETITION MAY FORCE MORE US MERGERS** 

## Only one way to go

By Christopher Parkes in Los Angeles

Squeezed between the by the formation of Exxonmerger on one hand and some of the lowest real oil prices on record on the other, US energy groups have only one way to the most suitable partner. If, go: into one another's as the actions of industry

arms. From the staid production and refining sector to the rough-neck field service and hardware providers, pete. consolidation has become the sole preoccupation of an industry that until this year industries for the past five bined.

Even as Exxon and Mobil confirmed their link, attention turned to Chevron. ranked number four in the world by market capitalisation. Texaco, number eight. and ninth-biggest Atlantic

announced it was withdraw- siderable strategic and cost annually. ing from negotiations to advantage in negotiations Recent background and covmerge its European refiner for rights to find and exploit erage since the Financial Mobil name may also help ies and retailing operations reserves in promising but Times broke news of the mitigate some of the cultural Shell, the Anglo-Dutch com- example, and strike co-opera- Thursday is available on the cess of grinding out the yesterday's official

One popular theory among

analysts was that Texaco competitive forces generated had decided its chances of tier companies have been finding a partner and costsaving synergies would be improved if it entered any marriage intact. But, like the others, it the oil field services and

faces the dilemma of finding leaders suggest, size is the greatest competitive advantage, there are limited opportunities for Texaco to com-

Excluding Shell and BP, Exxon-Mobil's market capitalisation of \$242bn makes it had resisted the urge to roughly the size of the rest merge obsessing other of the world's top-10 com-

That appears to limit the options for deals with one of the top three, which would almost certainly lead to daunting regulatory complications.

The economic merits -- of the mega-oil companies

second place in the global of Saudi Arabia which is league by Exxon-Mobil. looking for prospective looking for prospective

While the rest of the firstchallenged to seek imaginative solutions, lesser groups face a testing time which may see many crushed. Prospects are better for

technology sector, which has been busy consolidating for the past two years as the majors have sought out onestop providers. Options include more mergers and greater specialisation. But smaller oil

explorers and refiners find little comfort wherever they The oil price cycle, which has traditionally helped maintain the hope that something will turn up, is showing no signs of recov-

Even if the Asian economic recovery starts next year, as predicted by many beyond possible cost savings economists, long-term growth in energy demand is Texaco drew special atten- have yet to be proved. But still expected to hover tion on Monday when it they are likely to gain a con- around 2 per cent or so

INTEGRATION RETENTION OF MOBIL NAME MAY HELP CUSHION CULTURAL SHOCKS

Oil majers: return on capital employed (clean)

## Tie-up needs a willing junior partner

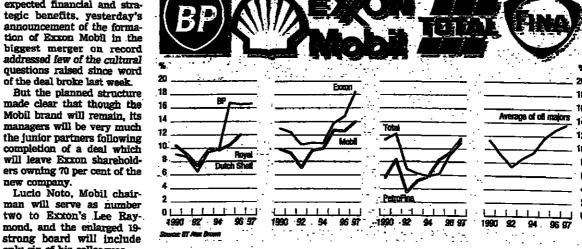
By Christopher Parkes

expected financial and strategic benefits, yesterday's announcement of the formation of Exxon Mobil in the addressed few of the cultural questions raised since word of the deal broke last week. made clear that though the Mobil brand will remain, its managers will be very much the junior partners following

ers owning 70 per cent of the new company. Lucio Noto, Mobil chairman will serve as number two to Exxon's Lee Raymond, and the enlarged 19strong board will include

only six of his colleagues. While logical given the prominence of both company maintaining two brands and their complementary marketing divisions may reduce the potential for early economies, estimated by the partners yesterday at about \$2.8bn before tax.

Yet the retention of the Shell, the Angio-Dutch com-example, and strike co-opera- Thursday is available on the cess of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday's controlled valuing mount at the co-opera-controlled access of grinding out the yesterday of the co-opera-controlled access of grinding out the yesterday of the co-opera-controlled access of grinding out the yesterday of the co-opera-controlled access of grinding out the yesterday of the co-opera-controlled access of grinding out the yesterday of the co-opera-controlled access of grinding out the yesterday of the co-opera-controlled access of grinding out the yesterday of the co-opera-controlled access of grinding out the yesterday of the yest



sures, spin-offs and lay-offs. an expected completion date, premium of more than 30 per Although no job cut estimates were on offer from the made available in time for companies yesterday, ana- the annual meetings next 24 when rumours of a link lysts said most were expec- spring. ted in marketing and refining, which account for about half the 123,000 total, and might run as high as 14,000.

More details are expected as negotiations continue and the world's regulators tackle the biggest merger yet preswith those of Royal Dutch/ remote areas of Russia, for Exxon-Mobil merger last shocks inevitable in the pro- ented to them. Unusually, for 1.32015 Exxon units.

only that details would be

Under the terms announced yesterday, the transaction is intended to qualify as a tax-free pooling of interests despite the disparity in the partners' sizes, in which Mobil shareholders will exchange their shares.

cent over the company's closing price on November began to circulate.

a merger, the companies said while Exxon is the biggest that beyond the near-term economies, they expected the link to allow them to enhance shareholder value ing, they said, Exxon Mobil higher return on capital employed than either could

mented one another "in almost every facet of the

·euta

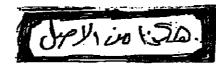
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Although they are expected to be obliged by regulators to reduce their filling station and refinery portfominimal overlaps between their exploration and production interests. "Respective strengths in

West Africa, the Caspian region, Russia, South America and North America line up well," they said. The combination of technologies and management expertise would reinforce Exxon Mobil as "partner of choice" for nations seeking help and capital to exploit their reserves. With combined sales of natural gas of 14bn cu ft a day, the new company would be well-placed in this fast-growing market, and there was a strong fit in lubricants.

Mobil is the world's lead-Touting the advantages of ing lubricants marketer refiner of the base stocks used in their manufacture.

In US marketing and refinlonger-term by producing a would "approach the size" of competing downstream joint ventures which include Tex-



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the final MOVES Mat fa.

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Med to

Shining through in all market environments

In volatile times the quality of financial partner becomes cruci You need rock solid financial strength, cutting edge innovation, depth description experience and contacts.

Through close relationships with our clients, we strive to add value to their businesses. So naturally we are pleased when those clients and the industry recognise our achievements, voting us one of the top two banks in global capital raising.\* We are pleased because this is recognition, not only for our proven expertise in Europe, but also our impressive track record in international cross-border transactions.

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Acquisitions Monthly, May 1998

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Project Finance International, January 1992-1998 Foreign Exchange

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Euromoney, May 1998 & Corporate Finance, September 1998

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No.1 Corporates' Choice for Derivatives

May 1997/1998

**Equities** 

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Reuters Survey,

Deutsche Bank



## Disposal helps Degussa post record figure

Degussa, the German metals and chemicals group. yesterday announced record earnings for the fourth successive year and said expected good results 1999 thanks partly to its impending merger with Huls, the chemicals division of the utility group

Pre-tax profits rose in the year to September 30 by 42 per cent to DM741m (\$438m), largely because of a 4 per cent increase in group sales

But Degussa also recorded an extraordinary gain of DM50m from the sale of part of its stake in the German copper producer Norddeutsche Affinerie.

despite signs of an economic slowdown in North America and the continuing impact of the financial crises in Russia and Asia. "we are well-positioned to withstand ket environment and expect to report high earnings again in the current fiscal

Europe excluding Germany. Asia and Latin America rose by more than 10 per cent in the 1997-98 business

But in Germany, where Degussa said demand for dental products had fallen substantially, sales dropped by 2 per cent to DM3bn. Degussa attributed the fall in Germany to uncertainty

among dentists and patients about the impact of legislation introduced last January to cut health care

been active in the Asian market, buying South Korea's largest producer of industrial carbon black last month from LG Chemical. The acquisition turned Degussa into the world's The company said that, second biggest maker of industrial carbon black, with an annual production

> pigment blacks. Degussa shareholders are expected to approve the merger with Hüls at an extraordinary meeting on December 18.

capacity of more than 1m

tonnes for rubber and

Trading in the shares of new company, trading, sales in each of the Degussa-Hüls, is expected to

## Life sciences merger hopes for a glamorous union

For Aventis to be successful it will mean a marriage of German and French cultures, write David Pilling and Graham Bowley

engineer a coherent strategy

following a dizzying bout of

enc Rorer, its pharmaceuti-

cal division: created Merial.

a veterinary health com

pany, through a merger with the animal health business

of Merck of the US; and

formed a separate chemicals

division, part of which has

Hoechst has been even

more trantic, engineering a three-way pharmaceuticals

merger of its own drugs

business with Marion Mer-

rell Dow of the US and Rous-

sel Uclaf of France. At the

pulling out of the chemicals

business, announcing only

last month it was spinning

But both Rhône-Poulenc

been floated off.

It has a brand new name, ity there are several hurdles problems too. Admittedly, it Aventis, a new interlocking management structure and, in time, it might even have a spanking new headquarters in Strasbourg on the Franco/German border.

But what will really interests investors and competitors is whether the merged life sciences businesses of Hoechst and Rhône-Poulenc can forge a union that is more attractive than its less than glamorous halves.

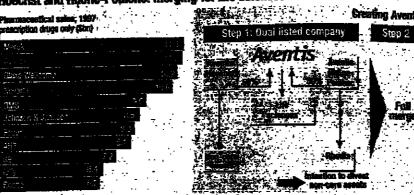
Aventis will become one of the biggest pharmaceuticals and agrochemicals companies. Not only does the merger involve two groups undergoing rapid and radical restructuring, it will entail uniting French and German cultures. The aim is to create what executives were yesterday proclaiming as a new type of trans-European company capable of battling

it out in the marketplace. "Only a few companies and Hoechst still have a lot will be able to participate in of restructuring to do. And the growth of the emerging life sciences sector," said what has already been Jürgen Dormann, the accomplished has yet to be properly digested. At HMR, Hoechst chairman who will the Hoechst drug division. occupy the same position at Aventis. He said the new profitability has failed to company would have the meet Mr Dormann's ambitious targets because scale, scientific know-how restructuring costs have and resources to be one of

has launched two momising to overcome. The first is to products recently, particularly Taxotere, a cancer acquisitions, demergers and disposals at both companies. world-class vaccine business. Over the past few years, But observers fear the company's gamble on the emerg-Rhône-Poulenc has bought 100 per cent of Rhone-Pouling sciences of genomics and gene therapy mean its really exciting products, if they come to fruition, are still

several years away. Given the pace of chang and the uncertainties at both companies, some analysts worry that Aventis may be one step too far – a cobbling merger. "I would have preferred them to have cleane up their own houses first, said one investment banker "But if they had done so they would have become easy targets. Merging was one of their few ontions."

The second important hurdle will be to convince investors that the new management team can work together. Executives went out of their way yesterday to stress that they had learned the lessons of other failed merger attempts - such as that between Glaxo Wellcome and Smithkline Beecham - which foundered when the two UK companies decided their management teams and corporate cul-



"All the sensitive issues of a financial, legal, corporate nature have already been settled." said Jean-Rene Fourton, chairman of Rhône-

The third obstacle is the new company's under-representation in the US, where nearly half the world's drugs are sold and the juiciest margins earned. Executives said the US sales force would be increased by at least 500 representatives to 4,000 in an effort to tan the potential of

existing and forthcoming drugs in the US. Even so, its sales clout will be some way behind the real heavyweights such as Merck.

The company admits that sales in the US and elsewhere will go through a mediocre patch as one important drug goes off patent but after that, "Aventis's sales growth will be quite different." said Igor combined marketing muscle will mean that one plus one

the same holds good for the that it must achieve more than the \$1.2bn annual cost important, it must make good Mr Dormann's promise of creating a "new company with a new culture and clear acoustic problems that accompanied the triple translation - from French German and English - at yesterday's launch, there are

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## Coffeng suspended after options probe

The Dutch securities industry is facing renewed judicial attention after a marketmaking company onthe Amsterdam bourse yesterday had its operations suspended and an options

The business of Coffeng, the main marketmaker in Shell company that is flagship stock on the exchange. was balted from Monday because it had inadequate

search by justice officials of Coffeng's offices. The unnamed trader was remanded in custody.

He is alleged to have accumulated large amounts of put options in Royal Dutch both before and after the oil company warned in mid-September that it would be affected by a weakening shares of Royal Dutch, the crude market in the current half-vear

> Insider trading is one of the allegations under inves-

Royal Dutch shares fell more than 5 per cent on that announcement, but subsequently recovered as merger activity took hold in the world energy sector.

The derivatives position held by Coffeng, though initially yielding profits, worsened as a result. By some accounts, recent purchases were made at unrealistic exercise prices in an apparent attempt to bring earlier tranches back in the

cials raided the stock exchange floor just over a year ago, in an investigation involving alleged money laundering and tax fraud as well as insider dealing. The main cases from that have vet to come to trial.

liquidity problems at options trading firms in the city this ING, the large financial group injected Fl 50m (\$36m)

into Extra Clearing, a sub- losses were running yester sidiary that had been hit by day at F1 40m-F1 60m.

hank and itself an Amster dam quoted company, acted as clearer for Coffeng and therefore had to guarantee its positions. It did not immediately provide an It also follows a spate of the listed Bever Holding, which owns 30 per cent of Coffeng, said the affair would cost it a maximum of

Estimates of the total

### Four buy into French electronics group

By David Owen in Paris

Four leading international computer and telecommunications companies are to pay FFr450m (\$79.3m) each for 7.5 per cent stakes in Thomson Multimedia in a deal that will see 30 per cent of the French consumer electronics group's capital transferred to private

The four are Alcatel of France, DirecTV and Microsoft of the US, and NEC of Japan. The French company announced in July it was signing memoranda of understanding with the four aimed at forming strategic partnerships to accelerate its development

The move may be only the first step in a process that could see the company floated next year. Such a step would significantly increase its room for strategic manoeuvre, as well as further reduce its high debt

It seems unlikely, however, that France's Socialistled government would consent to the state holding falling below 50 per cent in the short to medium term.

Gearing is expected to fall to about 100 per cent after the FFr1.8bn capital increase provided by the four strategic partners. The French authorities are

understood to have placed a

notional value of FFr4.2bn

on the group prior to the new partnerships - a figure which the proposed capital injection will ostensibly increase to FFr6bn. But Thomson Multimedia management will expect valuations of the group,

which has 20 per cent of the US colour TV market, to rise further as a result of the increased credibility brought by the new partners. It has indicated in the past

upstream in components and downstream in interactive television-based services. while confirming its existing strength in finished products.

In July, the company operating profit of FFr64m. | group.

### **Telecom** Italia mulls pay TV plans

Telecom Italia's board vesterday asked Franco Bernahe, the privatised telecommunications group's new chief executive, to complete as soon as possible negotiations over plans to participate in a new Italian digital pay television system.

Although the board did mention Rupert Murdoch in the short communique it issued last night, negotiations with the Australian media magnate are understood continuing.

Mr Murdoch announced last week his interest in acquiring a 39 per cent stake in Stream, Telecom Italia's multi-media subsidiary and its proposed vehicle to develop an Italian digital TV platform, with France's TF1 television network also taking a 10 per cent stake.

Mr Bernahe is familiar with both Mr Murdoch and Letizia Moratti, the Australian magnate's new European television business

However, he is understood to be reviewing the digital TV plans of the former Telecom Italia ton management unconvinced that the telecoms group should become a direct participant in the high-risk and high cost nav-TV market

The new Telecom Italia chief executive is also understood to believe the company's essential role is to be a communications service provider, and is reluctant to push it into the broadcasting

There were reports last night that Mr Bernabe is considering selling a major ity stake in Stream to Mr Murdoch and his French partners in an effort to reduce Telecom Italia's exposure in the digital pay-TV

Although this is tikely to raise a new political storm in Italy with both centreleft government and rightwing opposition leaders worried over Mr Murdoch's possible entry into the Italian broadcasting market. Mr Bernahe seems intent on minimising his company's financial risks in the venture.

There have also been sug gestions that Telecom Italia might even abandon its earlier digital TV ambitions. Canal Plus, the French

pay-TV network which owns 90 per cent of Telepio, the rival Italian digital TV netthat it hopes the work, has also continued its partnerships will help efforts to reinforce its position in Italy to fend off Mr Murdoch's eventual chal-

Telephi has already signed up exclusive rights with seven Italian soccer clubs and a film rights deal with the Florence Cecchi Gori reported a first-half media and film production

#### NEWS DIGEST

CARMAKING

### BMW shares fall 8% on concerns about Rover

Shares in BMW, the German luxury carmaker, fell more than 8 per cent yesterday after speculation that management was divided over what to with Rover, its troubled UK subsidiary. The German newspaper Die Welt reported that Bernd Pischetsrieder, BMW chairman, was at loggerheads with another management board member, Wolfgang Reitzle, over whether Mr Reitzle should take on the dual role of running Rover and being responsible for BMW's distribution network.

Mr Reitzle was said to be reluctant to take on the Rover job because of the subsidiary's lack of success since . BMW acquired it in 1994. At the time of the takeover, Rover was intended to become profitable in 2000, but some car industry specialists say the company could make a loss of up to DM1bn (\$591m) this year. Tony Barber, Frankfurt

FOOD RETAIL

#### Enaco IPO could raise Pta33bn

Enaco, a Spanish food retailing group, could be valued at up to Pta33bn (\$229m) when its shares begin trading on Spain's stock markets next week in the country's first initial public offering since the autumn's turmoil on stock

The company this week began meeting European institutional investors, taking advantage of a strong rebound in stock market valuations in recent weeks. ABN Amro Rothschild is global co-ordinator for the offering.

Shares in Enaco, which has interests in food retailing and wholesaling, cash-and-carry and franchise operations, have been priced at between Pta1,350 and Pta1,550 each and a final price will be set on December 8 before trading begins on December 11 in Madrid and Valencia.

At the indicative range, the company comes to the market with a price-to-earnings ratio of 20 to 23, according to Carlos Perez Font, finance director, compared with an average p/e ratio of 24 on the Madrid bolsa. Vincent

#### TELECOMMUNICATIONS

#### Telenor buys Russian stake

Telenor, Norway's state-owned telecommunications company, is to buy a 25 per cent stake in VimpelCom, Russia's largest mobile operator, for \$160m in cash. The company reached an agreement with VimpelCom, which controls the only digital cellular netownk in the Moscow area and cellular licenses for 68 per cent of the Russian population, whereby Telenor will get a strategic ownership interest in the voting stock. The deal will enable Telenor to develop its GSM licenses, fibre optic network and Internet services in Russia. Valeria Skōld, Oslo

VOLVO:

#### Excavator plant closed

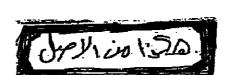
Volvo, the Swedish automotive group that announced a wide-ranging restructuring this week, yesterday said it was closing its excavator manufacturing plant in southern Sweden with the loss of 500 jobs. Closure of the Eslov factory follows Volvo's acquisition of Samsung's construction equipment division in South Korea. The company said the Swedish plant had lost money for several years. The job losses will form part of some 5,300 redundancies expected at Volvo. Tim Burt, Stockholm

**CABLES** 

#### Pirelli in fibre optic deal

Pirelli, the Italian tyres and cables group, yesterday made a breakthrough in the US optical fibre communications market after being chosen by Frontier Communications to increase the capacity and speed of its optical network, in a deal estimated by analysts to be worth \$150m. The Italian company has pioneered photonics technology and is establishing itself as a market leader in a business expected to grow rapidly as a result of the success of the inter-net and the liberalisation and deregulation of telecommunications. Pirelli has been investing heavily in expanding its cables, optical fibres and photonics businesses, which now generate annual sales of more than \$4.5bn.

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### Engineering M&A



be hard to find. And the looser the fit, the more questionable the synergy benefits BBA and TI Group are among those seeking "step change acquisitions. Roberto Quarta cannot afford to ruin BBA's premium reputation by diversifying further, however. Meanwhile, TI's Sir Christopher Lewinton could be short of sensi-hle targets in the UK if Vickers' bid for Ulstein Holding succeeds, and the chance of finding bargains in the US look

US buyers have not been put off cash bids by goodwill accounting, but some are toying with all-share pooling deals. As Lucas Varity found out, however, some London investors are still nervous about taking American paper. The other problem with US pooling rules is that the buyer cannot make significant disposals within two years of the deal. Unless buyers can wield the axe on non-core busin their acquisition plans risk destroying both focus and

#### Cortecs

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President

Oh no, not another biotechnology company that got carried away with its own optimism. In the wake of the British Blotech debacle, that is the kneejerk reaction. In Cortecs case, there is also truth in the interpretation, but it is out of date. Once a biotech company has reformed its founding messianic board, as Cortecs did earlier this year, it is inevitable that the work in progress will be found wanting. It is good news that the company now has a more heavyweight team and is inviting independent assessment of its projects. Also welcome was the lack of a kneejerk reaction among other biotech stocks. As the sector grows up - and Cortecs demonstrates the necessary pain of this process - the better run companies will become more immune to others' embar-

## shares fall 8% Micro Focus blames fall on poor US sales

By Paul Taylor

The first evidence that work solving the Year 2000 computer date problem may have passed its peak in the US has begun to emerge.

Year 2000 work has helped and services companies and has been one reason for their . strong share price performance over the past few

Focus, the (£3.21m). Micro Anglo-American software development tools and services group, yesterday the inclusion of the Inter-blamed weakness in North solv business from Septem America, particularly in its Year 2000 business, for holding back its quarterly

At the same time the profit warning last mouth group, which acquired Intersolv in September and issued a profit warning early last month, announced that Gary Greenfield was taking over as chief executive following

Mr Waters, whose departure was said to be "amicatomers moving to the later ble", will remain a non-execntive director.

(\$19.5m) charge related to the acquisition, Micro Focus reported a £10.9m pre-tax group's European operation loss for the three months to October 31, against a £3.84m

compare with profits of 3.5p. Excluding non-recurring charges and the amortisation of goodwill, pre-tax prof its actually increased to

£4.62m (£3.84m). At the operating level, the boost the results of many group broke even in the £3.3m profit a year earlier. Excluding non-recurring charges and the amortisation of goodwill, the figure edged higher to £3.65m

Revenues jumped to £40.1m (£25.4m) reflecting the inclusion of the Inter-

Micro Focus, which now derives 60 per cent of revenue from the US, issued a noting that demand for products to tackle the millen nium bomb had fallen.

Yesterday the group which provides software ser vices to corporate customers. the resignation of Martin said its Year 2000 business had been affected "by in tomers moving to the later stages of their remediation processes, for which [it] After taking a £11.8m did not have the appropriate

> remained very strong. The shares fell 81/2p to

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BIOTECHNOLOGY SECTOR RECEIVES FURTHER BLOW AS COMPANY ADMITS DELAYS WITH TWO DRUG DEVELOPMENT PROGRAMMES

Cortecs, the UK biotechnology company, yesterday admitted that two of its three lead drug development behind earlier forecasts, and said its chief executive and chief operating officer had agreed to resign

The news is a further blow to the UK biotechnology sector which was shaken this year by allegations that British Biotech, another quoted

company, misled investors by exaggerating the efficacy cantly any product registraof drugs under development. Shares in Cortecs already hit by a row over its for a US application, too. former chairman's pay pack-age and a looming funding In addition, the treatment

shortfall - more than halved, falling 15p to 11%p. Last February, they stood at 195%n. The company said new regulations meant it might have to collect extra data to secure approval for

tion, perhaps until 2004. This was the earliest likely date

might have to be reformu-

lated using a higher dosage, threatening its profitability. Cortecs also said it was having to conduct extra early stage trials for Pseudostat: its cystic fibrosis and bronchitis treatment.

"One feels misled on some of the programmes," said

Nick Woolf, analyst, at Banc-Boston Robertson Stephens. "The level of optimism on the part of the former manment was overdone. However, other analysts

said they were relieved that Macrulin, oral insulin and a potential blockbuster, ppeared to be on track The problems emerged during an internal review

led by Phil Gould, a former Glazo Wellcome executive, who joined Cortecs as research director in January.

appointed acting chief executive following the departure of Michael Flynn. Martin Preuveneers, chief operating officer, is also leaving.

Mr Flynn, formerly chief scientific officer, became acting chief executive in June after the resignation of Glen Travers, executive chairman. Mr Travers, who is claiming £1.5m (\$2.5m) in compensation for loss of office, left fol-

£34,500 for business class flights to Australia for his family and £42,400 for membership of a chief executives forum. Mr Gould said be had begun to present the findings of his review to Mr Flynn earlier in the year. and informed the board. investors at slow progress in

## Internet growth lifts LSE

treatment, in Europe

The rapid growth in share price internet services for private investors has lifted the London Stock Exchange's income, putting it in a "strong financial position" ahead of its planned alliance with the German bourse.

Despite an 8 per cent fall in income from trading folowing a cut in trading fees. the exchange raised its total income by 8.5 per cent to £76.2m (\$125.7m) in the six months to September 30.

expands, was a "very important component" of that overall revenue, the exchange said. Listing fees were also buoyant, with a during the first half: 121 smaller companies joined

a total of £1.2bn.

months, however, because of market volatility, but trad-The £15.8m of profit trans-Income from internet ser-

Income from listings had

decreased in the last few

ther as use of the net and interest, was slightly down on the £18.3m for the same period last year.

A priority was to continue preparations for the euro. We may not be joining as a country, but we are as an equity market, and we are ahead of the game," it said, citing the various euro-dethe London markets raising ominated products that can already be listed in London.

The fact that other Euro pean exchanges were interested in creating a single pan-European market would not slow down the progress of the planned Anglo-Gervices, expected to grow fur- ferred to reserves, after tax man alliance, it said.

yesterday said pre-tax profits had dipped slightly because of the cost of launching the On Digital pay television

Despite stronger than expected profits from its ITV ences, including Carlton in London and Central Television, the pre-tax result fell from £316.3m to £312.1m (\$515m) in the year to September 30 because of its 50 per cent stake in On Digital. As well as investing

£27.9m in On Digital and the

nels such as Carlton Food by a sharp fall in operating profits in its products division from £52.3m to £22.8m.

The drop was caused by weakness in demand for products such as Quantel post-production and editing equipment in Asia, and by confusion over likely standards for high-definition TV

Carlton hit by On Digital

Carlton's figures were ahead of analysts' expectations, helped by growth in TV advertising and the start of a fightback by ITV from

announced the appointment of Steven Cain, marketing director of Asda, as chief excluding exceptionals and digital television costs, from

£326.7m to £330.4m Analysts expect Carlton' investment in On Digital, launched in November, to rise to about £80m in the current year. On Digital is providing subsidies to encourage sales of digital set-top boxes.

Turnover rose

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#### **UK GOVERNMENT EURO** TREASURY BILLS

For tender on 8 December 1998 The Bank of England announces the issue by Her Majesty's

Treasury of euro 1,000 million nominal of UK Government Euro Treasury Bills, for tender on a bid-yield basis on Tuesday, 8 December 1998. An additional euro 50 million nominal of Euro Bills will be allotted directly to the Bank of England for the account of the Exchange Equalisation Account.

2. The Bills to be issued by tender will be deted 10 December 1998 and will be in the following maturities: euro 200 million of Euro Bills for maturity on 14 January 1999. euro 500 million of Euro Bills for maturity on 11 March 1999 and

euro 300 million of Euro Bills for maturity on 10 June 1999. 3. The tenders will be open to anyone who wishes to apply. All tenders must be made on the printed application forms available on request from the Bank of England or, in the case of the market makers listed in the Euro Bill Information Memorandum, by telephone. Completed application forms must be lodged, by hand, at the Bank of England, Customer Settlement Services, Threadneedle Street, London not later than 10.30 a.m., London time, on Tuesday, 8 December 1998. Payment for Bills allotted will be due on Thursday, 10 December 1998.

Each tender at each yield for each maturity must be made on a separate application form for a minimum of euro 500,000 nominal Tenders above this minimum must be in multiples of euro 100,000

Tenders must be made on a yield basis (calculated on the basis of the actual number of days to maturity and a year of 360 days) rounded to two decimal places. Each application form must state the maturity date of the Bills for which application is made, the yield bid and the amount tendered for.

6. Notification will be despatched on the day of the tender to applicants whose tenders have been accepted in whole or in part. For applicants who have requested credit of Bills in global form to their account with Euroclear or Cedel Bank, Bills will be credited in the relevant systems against payment. For applicants who have requested definitive Bills, Bills will be available for collection at Customer Settlement Services, Bank of England after 1.30 p.m. on Thursday, 10 December 1998 provided cleared funds have been credited to the Bank of England's ECU Treasury Bills Account No. 59005516 with Lloyds Bank PLC, Bank Relations, St George's House, PO Box 767. 6-8 Eastcheap, London EC3M 1LL Definitive Euro Bills will be available in amounts of auro 10,000, euro 100,000, euro 1,000,000 and euro 10,000,000 nominei.

7. Her Majesty's Treasury reserves the right to reject any or part of

8. The arrangements for the tender are set out in more detail in the Information Memorandum on the UK Government Euro Treasury Bill programme issued by the Bank of England on behalf of Her Majesty's Treasury on 7 July 1998. All tenders will be subject to the provisions of the Information Memorandum and to the provisions of this notice.

9. The euro 50 million of Euro Bills to be allotted directly to the Bank of England for the account of the Exchange Equalisation Account will be for maturity on 10 June 1999. These Bills may be made available through sale and repurchase transactions to market makers in order

10. Copies of the Euro Bill Information Memorandum may be obtained from the Manager, External Debt, Foreign Exchange Division at the Bank of England (telephone number 0171 601 5982). UK Government Euro Treasury Bills are issued under the Treasury Bills Act 1877, the National Loans Act 1968 and the Treasury Bills Regulations 1968 as amended.

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#### COMPANIES & FINANCE: UK

## GRE accelerates plans to stay independent

By Andrew Bolger

Guardian Royal Exchange, the UK composite insurer potential bidders, yesterday insisted it also had a viable strategy for remaining inde-

John Robins, chief executive, said he was accelerating plans to focus operations and cut costs across the group, so shareholders

firmed in an interview hisboard would consider all options - including a complete or partial sale of GRE, which is likely to fetch £3bn-£4bn (\$5bn-\$7bn). He said: about the potential savings work in the UK. "This process must be completed by the end of Janu-

Mr Robins pointed to substantial savings achieved in

from using digital imaging systems to transmit claim tical that Mr Robins will be forms to the Indian state of able to pull enough out of Morgan Stanley Dean Witter, Bangalore for processing and the hat to remain indepen-

However, Mr Robins con- bought last year for £485m. for similar types of back-of- to remain under pressure in posite felt it was not willing "We have got to get out of fice processing. GRE's 70 key areas such as direct to pay enough, although no areas we are no good at and Bangalore employees earn motor insurance." build shareholder value in an average of £1,000 a year, the areas we can.

simple claims settlement. An dent. Steven Bird of Merrill

compared with £20,000 for ble to takeover, said last

would be able to judge prop- its life insurance business increasing number of compa- Lynch said: They still leaft approached GRE about six erly the group's options. and in PPP Healthcare, miss use low-cost countries critical mass and are going weeks ago, but the UK com-

GRE is particularly excited employees doing similar week it was in talks with the US investment bank Axa, the French incurer, already in the process."

GRE, long seen as vulnera. Axa has a controlling stake "several parties" over the Mr Robins declined to consale of all or parts of its busi- firm the approach by Aza, or ness. It is being advised by any of the other potential "Anybody who is serious is purses slide

### New breed of managers take over barstool vacated by brewers

Nomura and other investors see strength in profits as well as beer in running tenanted pubs, writes John Willman

t is too soon to call time on the Japanese investment ate these companies comes the traditional British bank. brewing group which sells chain of tied pubs. But last is the UK's biggest landlord orders are certainly in the tenanted pubs sector.

brewers have now parted with their tenanted pubs to focus on their beer brands and managed theme pubs. A third is running its tenanted

Meanwhile, powerful new such as Unique which vesterday launched itself from with specialist management, the portfolio of pubs owned by Nomura International, tion. The opportunity to cre-

With almost 2,600 outlets across the country, Unique Its estate is as large as that Two of the UK's big four of Scottish & Newcastle, Britain's largest brewer. It joins several other com-

panies which have been buying up tenanted pubs - long. regarded as the underperforming tail of the industry. These are proving attractive pub operators are emerging, to investment banks which hope to raise their profile often as a prelude to flota-

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from the refocusing of the large brewers around the faster growing segments of the business: • the branded beers and lagers that account for a growing proportion of sales

• the managed pub chains created to attract particular segments of the market with brands aimed at groups such as women drinkers, young professionals and families with young children.

In the past, owning a tenanted pub provided an outlet for a brewer's beer with a largely captive audience with successful brands no

area. In a more affluent to travel for a night out to find the ambience they want rather than the standard

The rewards for success in themed - pubs are enormous. Turnover in around a third of Britain's lowest performing boozers is less than £2,000 (\$3,300) a week, yet can rake in more than £20,000 a week. Gross margips in the big managed puls can be more than 85

per cent - almost double the 20 per cent in the smallest. At the same time, brewers

sell their beers in Guinness, country, drinkers are willing the brewing arm of Diageo, has 5 per cent of the UK market without owning a single pub. And Anheuser Busch of the US has won more than 2 per cent of the creating attractive - often market for Budweiser by slick marketing and good

brand management. Tenanted pubs have moderately secure income in the owners can take on beer supplies where there is a tie. But growth is too slow to excite big hrewers which see more rewarding opportuni-

separation of brewing from pub ownership, with Greenalls Group leaving the brewing business in 1991 to concentrate on running pubs. Carlsberg-Tetley, the fourth largest brewer, has no pubs and Scottish & Newcastle has made clear its commitment to focusing on managed puhs.

Earlier this year, Bass, the country's second largest brewer, sold its 1,400 tenanted pubs to Punch Taverns, a new venture financed by BT Private Equity: Appropriately, it was formed by two restaurant entrepreneurs: Hugh Osmond, former executive director of Pizza Express, and Roger Myers who built up Pelican Group, owner of the Cafe Rouge chain, before selling it to Whithread in 1996.

The biggest collection of tenanted pubs, however, had been assembled by Nomura. by brewers. But there is Its Principal Finance Group, headed by Guy Hands, had yet for those in the hands of scooped up 1,380 free houses specialist managers.

drawn from its catchment longer need to own pubs to in the Phoenix group in 1995, adding the 4,309 pubs of the former Inntrepreneur and Spring estates last year.

This made the Japanese largest pub landlord by a has been quick to package up parts of the estate and sell them on where the price was right. Some 900 have heen sold piecemeal to various small pub operators, 310 to Scottish & Newcastle and 845 of the Phoenix chain to Wellington, another company formed by Mr Osmond

That left Nomura's Grand There has been a steady Pub Company with 3,700 or so tenanted pubs. Unique has been able to "cherrypick" the best of the collection for its operation, with a view to flotation by 2001. Nomura is left with a rump of 1,100 which it hopes eventually to sort out and sell on. So what do the investment banks which back these new operators see that the brew ers could not? Precisely that steady stream of rental income which can service

> securitised at a later stage. Meanwhile, the managers hope that by being prepared to invest in a sector that has been neglected for much of the last decade, they will produce some growth ticularly from landlords motivated enough to put some of their own capital into the businesses.

debt finance and perhaps be

Last orders may be coming for the tenanted pubs owned plenty of drinking-up time

#### 0.449**4** 0.795L**4** (1.49La) (9.01 ) (3.29 ) (8.72 ) (0.273 ) 9 maths to Oct 31 0.91♣ 8.59♥ 0.33 (1.09 ) (23.7 ) (15.20 ) 1.37 3.364 9.17 9.54 Edinburgh Income \_\_\_\_ 6 mths to Oct 31 60.7 (1,83 ) (6,29 ) (0.274 ) 18.2 (17.8 ) 6.41 2155 Арт 6 k Comparatives restated. ∲Alon stock. JOn reduced capital, (□G bincludes special. ∱includes foreion instante-dividend element.

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EQUITIES

By Philip Coggan, Markets Editor

**EUROPEAN OVERVIEW** 

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investors to take profits. The first day of the new trading month brought a rash of economic statistics in the form of purchasing managers' indices from five European countries - Denmark, Germany, Italy, Sweden and the UK. They all  $\Delta_{T_{i}}$ 

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Alex Brown, said: "The implication is that earnings European markets took a numbers have further disaphammering yesterday as pointments to come. We worries about the prospects expect European equities to for economic growth comenter a consolidation phase bined with the weakness of and remain vulnerable to Wall Street to encourage profit disappointments."

Bourses slide on profit-taking

David Bowers, European zone, dropped 39.31 to 923.53. strategist at Merrill Lynch, said: "At the end of last week, the European markets were around 8 per cent overvalued."

A correction was thus highly likely. Technical factors could also drag the marindicated that their manu- kets lower, he added.

Bond yield curve Per cent (December 1 1988)

European strategy at BT euro conversion period, 43.63 to 1,106.3. The FTSE Ebloc 100 index, which focuses on stocks in the euro

The sell-off was more marked in the blue chips than in the midcaps, where losses were confined to 1.8 to

Figures from FTSE International show that the European markets enjoyed a good November, with the FTSE

facturing was in decline. "People are now squaring Eurotop 100 index rising Ian Harnett, director of their books ahead of the about 9 per cent. The best performing sec-

tors of last month were assurance, up 16.3 per cent, the Swedish mobile phones ing individual stock with a jump of 28.4 per cent.

2.49 2.50 2.29 3.00 2.55 2.44 1106.30 2583.52 923.63 1099.06 1158.00 1151.19 -3.79 -3.84 -4.08 -2.02 -1.87 -1.90 30.72 38.81 14.94 0.88 0.02 FISE Sumbo 300 -3.84 -3.90 -3.75 --3.74 -48.22 --11.80 --41.44 --44.83 1024.51 1064.03 1153.50 1091.94 1113.45 1174.99 MS2.40 -3.65 -32.29 3.34 29.22 891,37 763.77 844.45 875.39 859.07 812.89 907.40 904.25 816.20 792.10 +13.59 -23.50 -25.50 -29.43 -29.12 -34.45 -28.25 1133.28 -4.39 -4.70 -4.20 -4.00 -6.32 -2.49 -3.17 870.57 874.53 921.01 984.61 850.55 1011.18 878.65 1305.26 931.84 993.02 863.28 1018.67 es, Pubs -22.37 -28.37 -12.40 -82.23 2.77 27.58

-510 -522 27 -519 -44.56 3.59 -4.07 -46.62 1.50 -4.86 -5138 1.00 -510 -44.81 2.71 -4.85 45.18 2.71 -3.46 -22.97 3.88 3071.78 3209.05 3294.28 Mirake 3056.11 3179.09 3281.19 3858.48 46 1149.25 1374.53 3382.56 increasion, Subject to problem along stars. 2633.07 2419.23 906.53

Aist 1921 1821 18.09 18.09 18.09 18.09 18.15 7.02 11.20 10.25 36.26 36.30 46.07 10.00 221 28.HF 612.HF 62.04 62.57 546.49 4.17 7.04 2.45 85 14 36 53 12 14 75 11 21 75 22 23 75 22 23 77 81 62 77 81 42 48 63 42 48 64 42 48 64 42 115 81 11 t, 444, 4, 4, 644 RETAILERS, GENERAL 128 -23 -45 -45 -45 -45 -47 -47 -47 32.M 7,02 43.57 180.47 195.80 5.48 192.11 25.37 5.28

地位之位外指数,我们是这种特别的,我们就是这种的现在分词,我们也是这种特别的,我们就是这种的,我们就是这种的,我们就是这种的,我们就是这种的,我们就是这个人,我们就是这一个人,我们就是这个人,我们就是 \*\*\*\*\*\*\*\*\*\*\*\* 在20年代之中,日本人的各人的合作。 第二年,五二年四 MEDUA BESSA B Sep B Canal Part Darkon & Bushing Puston Pulyanan Pulyan 128 41 47 EJ 251 257 417,34 421 421 551 182,44 183 -4 91 20 -6 58 69 -3 88 18 -3 58 25 A S Produ Cadhory Schor Durings Control Schools B-6 House Mr Callmar Mr Callmar Mr Callmar Mr 51 14 51 14 51 14 51 15 41 27 14 15

1829.07 18.50 18.50 10.20 72.50

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-5 -4 -4

when liquidity may dry up." The FTSE Eurotop 100 index fell 102.23 or 3.8 per cent to 2,563,52 while the broader Eurtop 300 slipped

The worst sector was the

construction industry, off 8.5 per cent, (ironically the sec-tor was far and away yesterday's best performer). the household goods company, which issued a profits

FTSE Actuaries Share Indices

828.47 936.27 1483.13 848.47 970.58

-1.9 \$5 0.6 67 -1.2 \$2 60 113 1.5 -2 \$60 113 1.5 -67 65 61 65 -1.7 \$2.4 22 20

125 18 29 45 45 19 40 114 04 65 19 59 43 144 62 28 427 52 85

23 84 25 97 22 27 21 01 30 61 35 64 25 64 34 50 121- 13 17 41 73 14 Actor
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Private of allocks many move on people bookings due to consider the consider.

FT SYNTHETIC EURO RATES

+0.0008 -0.0729 +0.1931 +0.0003 -0.0001 +0.0001 +0.0001 +0.0000 -0.2535 -0.0008 +0.0008 +0.0008 -0.0008 -0.0008 41.188378
36.133392
7.592749
8.071879
6.086357
1.595954
325.866081
306.148857
0.803188
1976.752412
41.188878
2.2550810
8.843829
12007.868117
22.254809
43.163828
189384280
9.830176
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0.720121 -0.0124 +6.1983 +0.0001 -0.0001 +0.0003 +0.0005 +0.0005 -0.0007 +0.0007 +0.0007 +0.0007 +0.0007 +0.0007 +0.0007 +0.0009 +0.000 +1.1657 +0.0179 +0.0987 +0.1782 -0.0109 +0.0150 +0.0046 1,429531 1,824164 11,950249 1,190066 +0.0268 +0.0100 +0.3290 +0.0185 1.887714 9.217216 145.095290 1.956501 +0.0097 +0.0736 -0.0599 +0.0118 +0.0188 +0.52 +0.80 -0.04 +0.80 +0.25 +0.0650 +0.1447 +3.7477 +0.8390 +0.0841

EUROZONE CURRENCY CONVERGENCE 7,0358 20,6257 3,3532 3,0405 0,4022 909,5967 20,6257 1,1271 102,5775 85,1013 +0.00 +0.00 +0.00 +0.00 +0.00 +0.00 +0.00 +0.00 +0.00 +0.00 3.50 3.49 3.55 3.66 4.05 3.78 3.49 3.3 3.63 990.002 20.6255 1.12674 102.505 85.0722

BONDS INTEREST RATE SWAPS 

**GOVERNMENT BOND SPREADS VS ECU** 7 yrs

-0.26 -0.08 -0.07 -0.10 +0.15 +0.15 +0.10 +0.38 +0.10 +0.16 +0.19 -0.10 +0.05 +0.03 +0.13 +0.16 +0.11 +0.24 +0.22 +0.13 -0.76 -0.11 -0.09 +0.39 +0.20 +0.13 -0.10 +0.22 +0.18 +0.36 +5.07 -+0.24 +0.99 -0.13 +2.64 +0.15 -0.11

**EUROZONE CORPORATE BONDS** 4.19 3.98 4.16 4.28 4.875 5.500 5.250 5.250 07/01 03/04 04/04 04/67 5,000 8,375 5,250 6,375 103,639 119,029 107,630 3,50 4,27 3,65 -0.02 -0.02 -0.05 -0.27 -0.21 -0.23

EUROZONE CREDIT SPREADS VS ECU 01/09 11/05 12/07 01/08 02/02 02/03 03/04 03/04 07/59 06/01 11/02 04/08 5.000 6.250 5.625 5.500 6.750 7.250 6.375 6.250 7.125 9.000 5.625 8.125

Notice to the holders of the Notes (the "Noteholders")

N.T.S. Steel Group Public Company Limited Bangkok, Thailand

(the "Company")

Swiss Francs 80,000,000.00 / US \$ 53,404,539.40 1% Convertible Dual Currency Notes due 16 December 2003

(Swiss Security Number: 147.759)

(the "Notes")

In accordance with Sections 11 and 17 of the Terms and Conditions of the Notes (the Terms") Credit Suisse First Boston ("CSFB") convened a Noteholders' Meeting which was held on Monday, 23 November 1998 at Credit Suisse First Boston, Uetlibergstrasse 231, 8045 Zurich, Switzerland. This Meeting, however, did not constitute a quorum which would have been able to validity vote on the ordinary and/or extraordinary resolutions set out in the Agenda of this Noteholders' Meeting (the "Agenda"). Pursuant to Section 17 (m) of the Terms, in case a Noteholders' Meeting is convened, but a sufficient quorum is not reached, the right to decide on the early repayment of the Notes, or any other measures to protect the interests of the Noteholders reverts to the absolute discretion of CSFB. Based on this right, CSFB adapted Resolutions 1–3 contained in the Agenda subject to the "Conditions" published on 12 October 1998 in the "Neue Zürcher Zeitung" and in the letter to the Noteholders, both containing the Agenda of the above mentioned Noteholders' Meeting. These Resolutions may be summarized as follows:

CSFB has decided not to declare an Event of Default pursuant to Section 9 of the Terms for any present or future event or condition until after December 31, 1998 or, in the event the Thai banks party to the Credit Facility Agreement, dated 20 April 1990, with the Company (the "Thai Syndicate Facility") agree to extend the standstill period relating thereto to 31 March 1999 or thereafter and the Company delivers to CSFB a copy of the agreement that provides such extension, until 31 March 1999 (the "Extension Period"), including, without limitation, the failure of the Company to pay interest on 16 December 1997 and 1998 or any amount due upon the exercise of the Put-Option pursuant to Section 4 of the Terms, until after the Extension Period. the Terms, until after the Extension Period.

The Terms shall be modified to the effect that any reference to a maturity date, with respect to principal, interest, default interest, penalty, fees and/or expenses under the Terms, falling on 23 November or thereafter in the year 1998, shall be replaced by a reference to "December 31, 1998" (or "March 31, 1999"; see Resolution 1 above), while the other provisions of the Terms shall remain unchanged. This also applies to any payments that may become due upon the exercise of the Put-Option pursuant to Section 4 of the Terms.

Resolution 3:

CSFB, acting on behalf of the Noteholders, has the right to agree to an extension of the Extension Period up to 30 June 1999 and, in implementation of any such extension, to modify the Terms to the effect that any reference to a maturity date with respect to principal, interest, default interest, penalty, fees and/or expenses under the Terms, falling on any date prior to the end of such extended Extension Period, shall be replaced by a reference to the date on which such extended Extension Period ends.

Printing and Delivery of the Notes

Based on the authorisation conferred on CSFB in Article II of the Note Purchase, Conversion and Paying Agency Agreement dated December 3, 1993 and governing the Notes, CSFB has provided for the printing of the definitive Notes and these Notes have been exchanged against the Global Certificate.

By order Credit Suisse First Boston November 24, 1998

New international bond issues

By Clay Harris,

Another gladiator is joining Europe's battle of the indices. From January 4 Euronia will challenge Eonia in the contest to become the benchmark for the overnight euro market. The winner, if there is one, is likely-to become the basis for fixing euro overnight indexed swaps.

Euronia – Euro overnight index average – was launched yesterday by the UK-based Wholesale Markets Brokers' Association. The rival Eonia is being promoted by some 60 banks. mostly from countries within the euro-zone.

The competition parallels that between Euro Libor. promoted by the British Bankers Association, and Euribor, a money-market index advanced by euro-zone hanks. There are also rivalries between competing equities and bond indices.

Euronia will be the average interest rate, weighted by volume, of all unsecured euro deposit rates arranged by brokers in London.

It will be limited to trades in which both parties are money market institutions listed by the Financial Services Authority or their overseas branches.

The WMBA intends to publish the rate by 6pm central European time each day. It hopes this will give it an advantage over Eonia, which will be published the next-

Michael Beales, WMBA chairman, said differences in the method of compiling the rates could lead to material differences between the two. He said the best guess was that London could account for 40 per cent of the overnight euro market.

WORLD BOND PRICES

**BENCHMARK GOVERNMENT BONDS** 

## D-Mark debut for Allied Domecq

INTERNATIONAL BONDS

By Khozem Merchant

Allied Domecq Finance Services, part of the UK spirits and retailing group, returned to the international debt market after an absence of five years, with a debut issue in D-Marks.

offering, arranged by Warburg Dillon Read, was priced to yield 90 basis points over the relevant German bund and was unchanged in secondary trading.

This is broadly consistent with recent comparable issues, such as that by DSM, the Dutch state mines and chemicals company. DSM's bond, issued two weeks ago. was of similar volume and maturity and is now trading at 92 basis points over Gerfrom continental Europe

bought the Allied offering. Over the past five years Allied has steadily been dis- club has an average home posing of assets, such as its food interests in the UK, and reducing its debt. The choice asset base, which has shifted launching an asset-backed

away from sterling towards the Germany market over the past five years.

In the past 12 months the company has repaid a 275to debenture and a £200m convertible bond. It will also redeem a £150m bond that matures in February.

Yesterday's offer, the proceeds of which will be used The seven-year DM500m to refinance existing debt, is part of a \$2bn global borrowing programme that will include one or two further issues in the next year. AC Fiorentina, the Italian

soccer club at the top of the

country's premier Series A

the second domestic club to issue an asset-backed floating-rate note. The 12-year L67.5bn bond was priced to yield 150 basis points over 12-month lira Libor. The note is secured by a man bunds. Institutions loan from Merrill Lynch, which will be repaid from revenues from season ticket sales and gate receipts. The

gate of 79 per cent at its 47,000 capacity stadium.
AC Fiorentina follows of D-Marks partly reflects Lazio, another Italian club, the company's income and and Real Madrid of Spain, in

E US DOLLARS 89.811R Dec 2003 0.30R 96.841R Dec 2010 0.35R 99.765A Dec 2003 0.375R 99.848R Dec 2002 0.25R RP America Holderbank Captal U DelmiarChrysler (UK) DFCC Benklatt Warburg Dillon Read III ITALIAN LIRE Public Power Corpt

league, this week became deal. Merrill Lynch, which arranged the issue, said they recognised the value of offering since its recent ary market. underlying assets, such as merger with Amoco. The cash-flow. Proceeds help clubs to buy players, an arranged by J.P. Morgan, increasingly costly commodity since the European Compoints over US Treasuries mission made its landmark Bosman ruling giving play-

ers freedom of movement. Turkey added DM200m to the three-year DM600m bond issued last month. The original offering was priced to yield 608 basis points over German bunds and had the issue was priced at least

tightened to 575 basis points five basis points too tightly. and that it had suffered corby yesterday. more clubs would follow as BP America made its first

five-year \$300m was lead-managed by ABN was priced to yield 50 basis

and was trading at the reoffer price after launch. BP America, whose rating is currently under review with positive implications, is rated Aa2 by Moody's Investors Service and AA by S&P. Some market dealers said

respondingly in the second DaimlerChrysler issued four-year \$200m bond, which

The issue was priced to yield 73 basis points over the relevant US Treasury and tightened to 72 basis points before widening narrowly to

73 basis points.

The issue was the first by the merged DaimlerChrysler group and was targeted at

By midday the 30-year

Treasury bond was & higher

at 102差, sending the yield

lower to 5.068 per cent. Ten-

year bonds rose & to 100 !.

yielding 4.682 per cent and

two-year notes 🛔 to 100 👬

yielding 4.459 per cent.

### NEWS DIGEST

EQUITIES

### Lower trading fees eat into net surplus at LSE

Buoyant listing fees and strong sales of information. services helped the London Stock Exchange raise its income by 8.5 per cent to £76.2m in the six months to September 30 but an 8 per cent drop in trading income. following reductions in trading fees introduced in October. last year, saw the surplus after tax and interest fall to ....

£15.8m from £18.3m in the same period last year.

Gavin Casey, chief executive, said the exchange would concentrate in the second half on the details of its tie-upwith the Deutsche Börse in Frankfurt to create a single European trading platform. The LSE spent nearly £1m during the year on promoting long-term share ownership for private investors in the UK, and said it planned further share aware" promotions next autumn. Vincent Boland

**CLEARING** 

#### French house to expand

Cleamet, a cleaning house set up by the Paris Bourse for over-the-counter trading of French government debt, is to extend its services to German federal bonds from January 4, less than two months after its launch.

The move, which follows a series of recent innovations in French financial markets, alms to help establish Paris as the euro-zone's dominant financial centre after January's introduction of the single currency. In the long term, Clearnet's objective is to handle OTC transactions on government bonds from all euro-zone countries.

Clearnet offsets transactions agreed between primary dealers in French debt, which end up settling a reduced number of trades at the end of the day. All these trades are settled with only one counterparty - the clearing house itself - minimising settlement risk. Samer Iskandar, Paris

#### DERIVATIVES

### FOA gives year 2000 guidance

The Futures and Options Association, which represents users of London's derivatives markets, has published guidelines setting out a uniform standard for compliance with year 2000 issues.

The guidelines follow consultations with members of the London Exchanges - which include the London International Financial Futures and Options Exchange, the International Petroleum Exchange, the London Metal Exchange, and OMLX – a London-based market for Swedish financial products - and the London Clearing House, which acts as the clearing and settlement agent for the City's derivatives

-0.03 +0.01 -0.05

-0.02 +0.07 -0.08

-0.20 -0.18 -0.18

**UK Indices** 

 222
 3.53
 2.24
 3.17

 220
 13.16
 2.22
 3.08

 220
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 2.23
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 2.22
 3.07

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 11.59
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4.14 4.23 4.33

5.28 5.22 5.18 5.35

The FOA's move follows a test run involving 19 members of the FOA covering all aspects of the derivatives industry in London. Vincent Boland

## Economic data lift European prices

**GOVERNMENT BONDS** 

By Arkady Ostrovsky in London and John Labate in New York

marķets rallied yesterday fuelled by fresh news of economic deceleration in Europe and a further slide in the US equity mar-

Purchasing managers indices across Europe suggested a sharp economic slowdown in the fourth quarter, while showing no price pressure in the manufacturing sector. German PMI fell to its lowest since it was introduced

-0.18 -1.08. -0.26 -1.39 Dec

\$200 100.7600 3.25 -0.03 -0.72 -0.15 -0.98 III LONG TERM PRINCH BORD OFFICIALS (MATTE) 111.7700 4.19 -0.00 -0.07 -0.13 -1.40

Bid Bid Day chop Wife chop Monate Year Compiles Price Suit Yield yield yield chop yid 8,750 108,2615 4.58 +0.03 -0.14 +0.25 -0.80 8,750 128,1752 5.04 - -0.21 +0.08 -1.17

9 000 109 2900 3.92 - -0.01 -0.16 -0.76 7.000 119 5500 4.32 -0.06 -0.16 -0.37 -1.60

5.000 100.5100 4.73 -0.08 -0.17 6.000 108.1460 4.92 -0.08 -0.23

4,000 101,0100 3.35 +0.01 7,750 124,3100 3.88 -0.04

01/99 11 000 100.8098 2.82 -0.05 -0.12 -0.23 -1.43 94/08 8.000 1/3 9580 4.12 -0.05 -0.12 -0.31 -1.47

The question economists are asking themselves is how long can bonds benefit from an economic slowdown before investors start worrying about widening budget deficits and oversupply of end remained constrained by government debt - illus- little hope of an immediate trated last week by Japan.

Jeremy Hawkins of the Bank of America said investors should not be misled by yesterday's PMI data because the data did not on the UK 10-ye include services. "The dan- by 0.11 to 117.32 ger is that if you lower interalready strong service sec-

inflation, which would be bad news for the bonds." Most investors in Europe focused on the long end of

the curve, while the short

German interest rate cut. The December future contract on the 10-year German bund closed 0.06 higher at 114.53. The March contract on the UK 10-year gilt rose

Mark Capleton of HSBS est rates too quickly on the said European bond markets basis of slowing manufactur- also benefited from a coning, you give a boost to an tinuing decline in Japanese

110.81 47,252

slipped over the past week, with average spreads over US Treasuries widening from 950 to 1,050 basis points, according to the J. P. Morgan Emerging Markets Bond index. Jose Luis Daza of J. P. Morgan said the drop reflected a price correction after two months of cau-

US Treasuries were below their early morning highs by midday as they continued to trade off changes in equity prices and investors reallocated holdings between the two markets.

tious improvement in emerg-

ing market paper.

The monthly index of economic activity by the National Association of Purchasing Management fell slightly to 46.8, an indicator of weakness generally in line with expectations. Analysis were quick to note that the NAPM reading was the sixth month in which the index

was below 50, a sign of

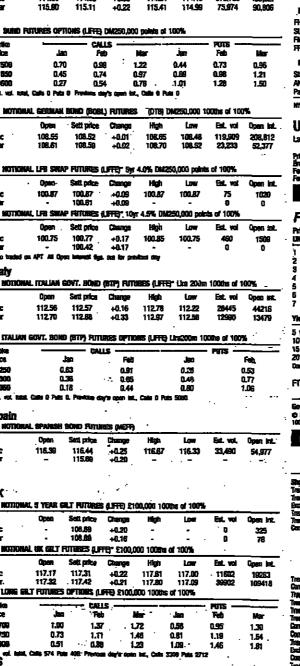
industrial contraction.

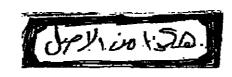
| Ecu<br>Ecu Boko   | -                      | ETAM)              | H3H0                 | 0.000                        |                            |                  |                      |                         |                      | · ·              |                      | INT                       | ERN                   | ATIC               | MAL                     | . BON                                    | IDS   |                              |
|---|------------------------|--------------------|----------------------|------------------------------|----------------------------|------------------|----------------------|-------------------------|----------------------|------------------|----------------------|---------------------------|-----------------------|--------------------|-------------------------|--|---|------------------------------|
| Dec   | Open<br>108.50         | Sett pr            | ta (                 | 2000<br>2000<br>2000<br>2000 | High<br>108.5              |                  | Low<br>08.50         |                         | TOL<br>O             | Open<br>248      |                      | Dec 1                     |                       |                    | - Red<br>data           | Соврем                                   | S & P<br>Rating   | !<br>Pi                      |
|   |                        | •                  |                      |                              |                            |                  |                      |                         |                      |                  |                      | 88                        | BING DIK              |                    | 02/07                   | 5.750                                    | AAA   | 111.00                       |
| US COF  | 1PUK                   | AIE,               | BUN                  | IN2                          |                            |                  |                      | Dey's                   |                      | 1 Sp             | _                    | Spein                     | Morris                |                    | 01/07.<br>03/04         |  | M.  | 110.20                       |
| Nev 30  |                        | Red.               |                      | S & P<br>Rating              |                            | ed.              | Eld<br>yield         | chips<br>yei            | 中                    |                  | 1                    | Holen                     | J FRM '               |                    | 09/02                   | 3.531                                    | AA  | 100.52                       |
|   |                        | 702                | 7.25 <i>l</i>        |                              |                            |                  | -<br>5.28            | -0.09                   | +0.0                 |                  |                      | Austri<br>Abber           |                       | :                  | 01/04<br>02/04          | 5,500<br>6,000                           |   | 107,88                       |
| Pac Bell<br>NY Tel<br>CWE   | 00                     | VD3.               | 7.00                 | M-<br>A+<br>BSB .            | 105.32<br>103.42<br>114.57 | 47               | 5.96<br>5.96         | =0.19<br>-0.07          | -0.1                 | Ø+               | 0.77<br>2.05<br>1.23 | Cred 9                    | ioncier<br>Fijk       |                    | 02/04<br>12/01          | 9.125<br>3.617                           |   | 122.95<br>99.67              |
| AL FREDICH  |                        | _                  |                      | ···                          |                            |                  |                      | : .                     | ٠.                   |                  |                      | BB 1                      | uro Lur               | A                  | 02/07                   | 7.000                                    | AAA   | 118.89                       |
| GECC<br>Banc One<br>CNA Fin   | C.                     | V02<br>Z18         | 7.25                 | A.<br>A.<br>A-               | 120,69<br>105,94<br>95,19  | 78               | 5.64<br>5.43<br>7.42 | -0.02<br>-0.14<br>-0.09 | +0.1<br>-0.0<br>+8.1 | 6 +              | 0.91<br>0.92<br>2.35 | Abbey<br>Walt (<br>EBS FF | isney                 | ٠.                 | 02/02<br>06/00<br>03/01 | 6.800<br>8.625<br>4.743                  | AA<br>A   | 109.06<br>107.06<br>100.02   |
| AL INDUSTRI   |                        | ٠.                 |                      | . :                          |                            | :                |                      | ٠٠.                     | -                    |                  |                      | ٠.                        | 2 098                 |                    |                         |  |   |                              |
| WALK Tech<br>Wal Mart   | . 05                   | /02                |                      | 88÷<br>AA                    | 100.10<br>105.60           |                  | 5.86<br>4.96         | -0.08<br>-0.09          | +0.1<br>+0.0         |                  | 1.53<br>0.45         | ESE<br>Dreset             | er Bk                 |                    | 12/07<br>12/07          | 7.625<br>7.750                           | AAA<br>Aa-  | 116.75<br>108.88             |
| Dayton Hud  | 08                     | 121                | 9.70                 | <b>A</b> -                   | 136.66                     | <b>81</b> 1      | 6.56                 | -0.14                   | -0.3                 | 7 +              | 1.49                 | British                   | 686                   |                    | 03/00                   | 7.525<br>7.136                           | A   | 101.74                       |
| , III ASSICIES<br>Filanc  |                        | ·                  | 714 I                | <br>Mar                      | 110 67                     | 90               |                      |                         |                      | .ن.<br>ان ه      | N E-9                | -                         | Max FTBI<br>880-\$    |                    | 0202                    | 7.130                                    | - AA  | 100.14                       |
| SLMA  | : 03                   | V00                | 7.50 1               | N/A.<br>N/A                  | 112.57<br>103.04           | 83               | 5.26<br>4.98         | -0.08<br>-0.09          | +0.1<br>+0.1         | 1 +              | 0.53<br>0.44         | ĖB.                       | -                     |                    | 04/07                   | 7.250                                    | AAA   | 113,38                       |
| FILMA<br>FFCB   |                        |                    |                      | MA '                         | 140.99<br>123.01           |                  | 5.47<br>5.20         | -0.09<br>-0.06          | -0.8<br>-0.0         | 1 +4<br>1::+4    | 0.40<br>0.47         | ABN A<br>Quebe            |                       |                    | 08/07<br>01/07          | 7.125<br>7.000                           | - AA-<br>- A+   | 105.13<br>108.30             |
|   | . O                    |                    |                      |                              |                            |                  | ·.·.                 |                         |                      |                  |                      | Chicor                    |                       |                    | 02/04                   | 5.312                                    | A+  | 95.02                        |
| Stone Cont  |                        | A01                | 9.88                 | В                            | 102.25                     |                  | 0.00                 | -                       |                      | -                | -                    | AN B                      | URO CS                |                    | 96/64                   | 9.500                                    | AAA   | 120.22                       |
| AK SE<br>Pagaba   |                        |                    |                      | 16<br>B                      | 105 <i>.5</i> 0<br>85.00   |                  | 0.00<br>0.00         |                         |                      | -                | -                    | Toront                    | 0                     |                    | 05/04                   | 8.500                                    | · AA+   | 115.23                       |
| NY chaing, Stand  | iard & Poor            | i dipla            | Telds 4              | ani-pana                     | l bests.                   | . \$             | oper i               |                         | Deby(F)              | interne          | elian.               | Belt C                    | madia<br>he B FRI     | N                  | 07/99<br>09/02          | 10.825<br>5.875                          | A+<br>AA+   | 108.113<br>101.76            |
| US INTI   | EDEC1                  | r da               | TEC                  |                              |                            |                  |                      |                         |                      |                  |                      | <b>3</b> B                | INO YEN               | ), ·               |                         |  |   |                              |
| Latest  |                        | I IVA              | 11123                |                              | ressury                    | BELLS            | nd Bo                | nd Yiei                 | ds.                  |                  | •                    | World<br>Spain            | Bank                  |                    | 03/02<br>03/02          | 5.250<br>5.750                           | AAA<br>AA   | 115,457<br>116,897           |
| Prisse rate   |                        | 71.                | One 200<br>Two mo    | <b>ni</b> h                  |                            |                  | Two                  | CEF                     |                      |                  | 4.49                 | Cred F                    |                       |                    | 06/02<br>· 07/99        | 4.750<br>0.461                           | A   | 113.200                      |
| Broker Ican rate<br>Fed.frants  |                        | 645                | Three in<br>Six spon | onti                         |                            | 4.50<br>4.53     | Five y               | W                       | -                    | _ '              | 4.48<br>4.45<br>4.89 | Louis                     |                       |                    | 07738                   | UAQ1                                     | <u> </u>  | 100.05                       |
| Fed.fands at Int  | erversion              |                    | Dne yee              |                              |                            | 4.48             | 10-ya<br>30-ya       | -                       |                      |                  | 5,07                 | Standar                   | d & Peor's            | عربات د            | . Yettle: (             | acei mente                               | ł stendani  | سأبساث                       |
| UK BO   | INDS                   |                    |                      |                              |                            |                  |                      |                         |                      |                  |                      |                           |                       |                    |                         |  |   |                              |
| FTSE AC   | :hiarie                | s Gr               | wen                  | men                          | t Se                       | crett            | ies .                |                         |                      |                  |                      |                           |                       |                    |                         |  |   |                              |
| Price Indices   | ,                      | . u                | <b>m</b>             | ey's ' A                     | ccrued                     |                  | Tat                  |                         | Durati               | on               | 7                    | <br>K                     |                       |                    |                         | •  | Tue   | Day's                        |
| UK Gibs   |                        | Dec                |                      | ge % i                       |                            | ytd              | Retu                 |                         | _                    | Yield            | _                    |                           | ndex-fin              |                    |                         | . ·                                      |   | chos %                       |
| 1 Up to 5 ye<br>2 S-10 years  | (12)                   | .120<br>169        | .14                  | 1.12<br>1.22                 | 1.33<br>0.89               | 10.76<br>11.35   | 1783<br>1314         |                         | 36<br>90             | 5,04<br>4,69     |                      |                           |                       | 5 year<br>5 year:  |                         |  | 225,77<br>249,54  | 0.10<br>0.39                 |
| 5 10-15 years<br>4 5-15 years   |                        | 184<br>173         |                      | 1.33 ·<br>1.25               | 2.27<br>1.28               | 10.43<br>11.12   | 1434                 |                         | 79 ·<br>83           | 4.65<br>4.88     | 13                   | .44                       | 5-15                  | years (:<br>15 vea | <b>3</b>                |  | 235.16<br>262.30  | 0.30                         |
| 5 Over 15 ye<br>6 Irredeemah  |                        | 229<br>318         |                      |                              | 0.52                       | 13.27<br>14.66   | 1561.<br>1844.       |                         | .88<br>.77           | 4.54<br>4.70     | · 22                 |                           |                       | DC/cs (1)          |                         |  | 245,01  | 0.49<br>8,34                 |
| 7 All shocks  |                        | 164                |                      | 123                          | 1.22                       | 11.39            | 1335                 |                         | 95                   | 4.66             | 100                  |                           |                       |                    |                         |  |   |                              |
| Yield indices   | Dec 1                  | Hov 3              | 0 Yra                | <u> </u>                     | Yield i                    | ndices           | D                    | 95 1 N                  | ay 30                | Yr ag            | 9                    |                           | eal ylek              | 1 0                |                         | ististica<br>is ya hi                    |   | <b>2</b> 90                  |
| 5 yrs<br>10 yrs   | 4.79<br>4.66           | 4.83<br>4.89       | 6.70<br>6.54         | 8<br>4                       | isted †                    |                  |                      |                         | 4.72                 | 6.54             |                      |                           | p to 5                | A2 1               | 2.99                    | 3.51                                     | LD1 3   | .93                          |
| 15 yrs<br>20 yrs  | 4.50<br>4.57           | 4.64               |                      |                              | Med. 1<br>High 1           | 5 yas<br>5 yas   |                      |                         | 4.65<br>4.72         | 6.46<br>6.56     |                      |                           | маг 5 уг<br>-15 утз   |                    | 2.48                    | 9.87                                     | 2.51 3  | 1.29<br>1.41                 |
| Coupes Bands: N   |                        |                    |                      |                              | r. † Rei                   | 700E 70          | i Year               |                         |                      |                  |                      |                           | Wer 15  <br>Il Stocks |                    |                         |  |   | .24<br>.31                   |
| FT Rosed Into   | rest Indi              | CEŞ                |                      | ٠.٠                          |                            |                  |                      |                         |                      | -                |                      |                           |                       |                    |                         |  |   |                              |
|   |                        |                    |                      |                              | 10r 2                      |                  | _                    |                         | High                 | اعا"             | _                    | <u> </u>                  |                       | _                  | Dec 1                   | Nor 30                                   | Nov 27  | <b>3</b> 07 28               |
| Govt. Sees. (U<br>© F75E Internets  | 147) T<br>1981 121 132 | 14.27<br>8. Ali ny | 13.94<br>19 (986)    | 113.28<br>rod. * ber         | 113.55<br>1998. Go         | 5 112.           | 58 1(<br>Securit     | 00.57<br>les Nub :      | 112.59<br>Hecs ox    | 93.<br>Gelen     | ぶし<br>数 127          | Flored<br>40 (1809        | itierest              | 18 8 88            | 153.81                  | 153.41                                   | 153,38  | 152.34                       |
| © F7SE Internets<br>100: Government   |                        |                    |                      | hime 1                       | 925£ 5E 1                  | ها رادگ          | icu a                | 10                      | M.                   |                  |                      |                           | **                    | io (wa)            |                         | anosok m                                 | P <b>2004</b> (1)   | HOMEON.                      |
| UK GIL  | .1S P                  | HICE               | S                    |                              |                            |                  |                      |                         |                      |                  |                      |                           |                       |                    |                         |  |   |                              |
|   |                        | . Jan              | <b>R.</b>            |                              | _ 52                       | <b>100</b> K_    |                      |                         |                      |                  |                      |                           |                       | - 57               |                         |  |   |                              |
| Shorts" (Lives as   | Notes to               |                    | ma                   | £ +0r-                       | Sign .                     | Law              |                      |                         |                      | <u> </u>         | _                    | _                         | <u> + 07 -</u>        | Hogh               | Law                     | <u> </u>                                 | . N   | _ Y1<br> des (1)             |
| Tream 91 <sub>2</sub> DC 1988   | 94                     | 7 6.55             | 100.33%<br>100.64**  | 0059                         | 102.63                     | 100.34           | East 1               | Pape 200<br>10 Pape 20  |                      | - 192            | . 470                | 100 630                   | _ 34.03               | 155.00             | 4 700 744               | <b>ind</b> er-Un<br>2 <sup>2</sup> 21≤ 9 | int<br>8  | (4)<br>- ∳ 0.56              |
| Dark 17L no 1000  | 170                    | 12 5 22            | 101 811              |                              |                            |                  | 1000                 | 12'39C Z                | JUI-5_               | _ 9.23           | 170                  | 133,681                   | a 2941                | 124 BB             | 127.40                  | 21-re T                                  | nn  | 78.39 2.25                   |
| Treas 10 <sup>1</sup> 29¢ 199<br>Treas Spc 1998<br>Conv 10 <sup>2</sup> 4pc 1996                                  | 60                     | 0 5.85<br>U 5.85   | 100.036<br>100.036   | +.0273                       | 100.03                     | 101.55<br>98.35  | Carry                | 9 kpc 20                |                      | - 7.33<br>- 7.33 | 47                   | 132.938                   | + 0860                | 134.01             | 121.03                  | 44x 1                                    | <i>الىنىد.</i><br>13ســــــــــــــــــــــــــــــــــــ | 5.0 211                      |
| Arm in the loss   |                        | - 447              | HAC.130.             | * +02/3                      | 1,00-40                    | 183 62           | TREE                 | 74ac 20                 | 16                   | . 6.60           | 4.76                 | 119 249                   | 1.476                 | 110 00             | 100.12                  | 44.00                                    |   | 86) 214<br>88 218            |
| •   |                        |                    |                      |                              |                            |                  | Traces               | ape 2002<br>11-ber 2    | -8,<br>103-7,        | . 7.25<br>§ 9.41 | 4,98                 | 110.347                   | +.1375                | 110.83             | 104.51                  | 1' عزاج <sup>2</sup> 2<br>1' معدا2       | 1   | 48 22                        |
|   | •                      |                    |                      |                              |                            |                  | Terro                | 72.00 20<br>72.00 20    | )/<br>17             | _ 6.72           | 4,74                 | 126,408                   | +2910                 | 127.29             | 113.32                  | 21 <sub>2</sub> pc 7                     | 6   | 16 22                        |
| Treas 8 <sup>1</sup> 2pc 2000<br>Conv 9pc 2000  |                        | 4 5.50<br>6 5.54   | 101.174;<br>104.023  | +.0730                       | 163.84                     | 101.81           | 14989                | in after a              |                      | 5 F.03           | 4,6                  | 140,242                   | - 0751                | 141.61             | 133.46                  | 21gpt 2                                  | V   | 3 <b>0,</b> 221<br>77) 217   |
| Conv Spc 2000<br>Tracs 73pc 2000  | 1                      | 7 547              | 111 440              | +0479                        | 174.63                     | 110.58           | Treas                | spc 2006<br>Spc 2006    |                      | - 6.71<br>- 6.21 | 4.84<br>4.86         | 134 169<br>128.8673       | +3736                 | 135,17<br>130,46   | 11931                   |  | 003   | 51) 213                      |
| Trees 73pc 2000<br>Trees 8pc 2000<br>Trees 10pc 2001<br>Trees 10pc 2001   | ژ.<br>ا                |                    | 100.805<br>100.805   | +.0056                       | 100.82                     | 100.17           | Tree 4               | Skpc 200                | 18                   | . 5.19<br>       | 4511                 | 10.7155                   | +4799                 | 110.83             | 39.36                   | · :                                      |   |                              |
|   |                        |                    |                      |                              |                            |                  |                      |                         |                      |                  |                      |                           |                       |                    |                         | Prospecies<br>(a) Figures                | i 1922) reder<br>ii) Decemb                               | 440 ACCUPA<br>1000 ACCUPANTO |
| Treas ?pc 2001  | 6.0                    | 4 5.00             | 105.3611             | +.1271                       | 105.58                     | 100.40           | Trees !              | Page 20                 | 12_                  | 5.08             | 15                   | 100 3307                  | +.5136                | 10014              | 127.63                  | 1007                                     |   | adjusted.                    |
| East 12pc 1989-2<br>Corn 19pc 2002<br>Treat 7pc 2002  |                        | 4.87               | 100.670g<br>115.2925 | -0159<br>+9605               | 104,84<br>115,36           | 100.01<br>110.98 | Treat (              | pc 2013                 | 2_1F                 | - 593            | 4.80                 | 135.0971                  | + 3842                | 136.43             | 31.35<br>114.00         | 1988. 184                                |   | u 1345.                      |
| Treat Tys. 2002<br>Carr 9 1 <sub>29</sub> c. 2002<br>Treas 94.ac. 2002  | 65<br>82               | 8 4.9910<br>0 4.96 | 6.7554a<br>114.424   | +.1572                       | 107,14                     | 160.91           | HORS                 | Athe on                 | 2-13                 | - 3.96           | 4.73                 | 124.357                   | + 4074                | 130,50             | 110.47                  |  | _   |                              |
| Comb Constitute   |                        |                    |                      | T.1000                       | riume                      | 111.19           | Torons               | ar Mis                  |                      | . 6.73           | 4,811                | 39.7153                   | +270                  | 1 <i>l</i> h 14    | 1154                    | Other !                                  | Fixed k   | iterest                      |
| Daw 91-90, 2002<br>Tress 91-90, 2002<br>Each 90, 2002<br>Coor 91-90, 2003<br>Tress 10pc 2003<br>Tress 131-pc 2000 |                        | 2 4.99<br>8 4.72   | 12 647               | +2796                        | 11933                      | 11278            | 7,0025 E             | 140c 201<br>2ne 2012    | 7                    | . 5.77<br>L AW   | 491                  | 151,5354                  | + 4183                | 153.14             | 124.41                  |  |   | Ye                           |
| Tricor 10no 2009  | 97                     | 9 4 94 9           | 191 600              |                              |                            | *****            | Toron (              | No. of Conc.            |                      | -                |                      | ******                    | 71-91-92              | 11000              | 123.01                  |  |   | 100                          |
| Trees 13/kpc 2000   | <u></u> 121            |                    | - 6000               | - <b>- 107</b> 1             | 148.71                     | 11214            |                      |                         |                      | . 4.72           | 4.271                | 27.1247 <u>s</u>          | +.5027                | 129.81             | <b>89.88</b>            | Asten Dev<br>Bitaan (1)                  | 104pc 200<br>abo 200-                                     | 9. <u>754</u>                |
| Flore to Pilitage To<br>Trace & Low 2000  |                        |                    |                      |                              |                            |                  | Under<br>Consul      | 4 4 2                   |                      | 414              | ٠.                   | 90.0                      |                       |                    |                         |  |   |                              |
| Trace 6 l <sub>2</sub> gc 2000<br>Trace 11 l <sub>2</sub> gc 2001<br>Trace 11 l <sub>2</sub> gc 2001              | i4_ i0[                | , 1.201U<br>7 5.26 |                      | +2002<br>+5002               | 196.55<br>114.61           | 180.50<br>110.50 | We lo                | et 31 <sub>200</sub>    |                      | 45               |                      | 300 M                     | +.1302                | 22日                | ## A2                   | Cherbon 3<br>FDC 306 .5                  |   | 5.83                         |

4.48 -0.11 -0.21 +0.26 -1.33 4.48 -0.08 -0.21 +0.25 -1.38 4.71 -0.06 -0.18 +0.10 -1.14 5.12 - -0.15 -0.03 -0.95

10 YEAR BENCHMARK SPREADS

|                    |         |  |               | VS                 |              | Blo          | VS                         | 15             |
|--------------------|---------|--|---------------|--------------------|--------------|--------------|----------------------------|----------------|
| Dec 1              | γ,      | eki Bun                                  | ds T-Bon      | <u> </u>           |              | Yleid        | Bunds                      | T-Bonds        |
| Australia          |         | 04 +11                                   |               |                    |              | 5.5          | +1.59                      | +0.85          |
| Austria            |         | 16 -0.                                   |               |                    |              | 5.33         | +1,41                      |                |
| Balgium            |         | 24 +0.                                   |               |                    |              | 4.26         |                            | -0.40          |
| Canada             |         | 92 +11<br>27 +0:                         |               |                    |              | 4.34         |                            | -0.32          |
| Denosak<br>Pinland |         | 27 0:<br>21 0:                           |               |                    |              | 4,31<br>2,43 | +0.39                      |                |
| ennane<br>France   |         | 27 • • • • • • • • • • • • • • • • • • • |               |                    | anc .        | 4.65         | -1.49                      | -223           |
| Germany .          |         | 97                                       | .s ~ure<br>00 |                    |              | 4.66         | +0.73                      | -0.01          |
| indiand            |         | 19 +0.2                                  |               |                    |              | 4.07         | +0.15                      | -0.59          |
| Raiy               |         | 23 +0.                                   |               |                    | nteractive O |              |                            | -0.36          |
| Janeso             |         | 15 -2.                                   |               |                    | iosme. " No  |              |                            |                |
| Netherlands        | 4.      | D4 +0                                    |               |                    | d yield best |              | -                          |                |
| <b>EMERG</b>       | ING I   | MARK                                     | FT R          | ONDS               |              |              |                            |                |
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|                    | Red     |  | 5 & P         | Blat               | Rid          | choe         | chae                       | Spru<br>WS     |
| Sec 1              | date    | Coupn                                    | Rattoo        | arice              | vield        | - yid        | ytd                        | US             |
| W EMOPE            |         | ٠  | - · · · ·     |                    |              |              | <u>.</u> .,                |                |
| Crostle            | 02/02   | .7.00                                    | 0 BBB-        | 89,9656            | 10.75.       | -0.50        | -217                       | +633           |
| Potand             | 07/04   |  | RAR -         | 107.4334           | 6.36         | +0.00        | +0.07                      | +1.90          |
| Russia             | 06/07   | 10,00                                    | -300 c        | 26,7500            | 41,90        |              | -3.80                      |                |
| M LATER AL         |         | •  |               | 33                 |              |              |                            |                |
| Arcentina          | 09/27   | 9.79                                     | -             | 88.2500            | 11.11        | +0.26        |                            |                |
| rayonana<br>Brazil | 05/27   | 10.12                                    |               | 73.2500            | 13.93        | +0.47        | -0.26                      | +6.07          |
| Mades              | 05/26   | 11.50                                    |               |                    |              | +0.47        | -1.0 <del>5</del><br>-0.31 | +8.89<br>+5.85 |
|                    | 0320    | 11. <b>30</b>                            | 00            | , (na:anne         | · ruter      | +4 22        | -0.31                      | +2.53          |
| ME ASIA            |         |  |               |                    |              |              |                            | _              |
| China              | G7/06   | 7.75                                     | 1 1888+       | 103.2467           | · · 7.17     | +0.25        | +0.38                      | +261           |
| Philippines        | 10/16   | 8.75                                     |               | 92,9457            | 9.58         | +0.50        | -1.20                      | H.76           |
| Thadand            | 04/07   |  | <u> 128</u>   | 94 6913            | 8 65         | +0.07        | -2.87                      | +4.04          |
| E ÁRICA            | MODLE 6 | R21 . ;; 121;                            | *             |                    |              |              |                            |                |
| Lebengo            | 07/00   | 9.12                                     | 5 'BB-        | 102.4702           | 743          | 40-50        | -0.12                      | +2.99          |
| South Africa       | 10/06   | 8-17                                     |               | 87 9399            | 10.71        | -0.09        | +0.12                      |                |
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| III BRADT I        |         |  |               |                    |              |              |                            | ****           |
| Amerika            | 03/23   | 5.75                                     | . BB.         | 72,3750            | 8.75         | +0.14        | -0.40                      | +3.79          |
| rayorum<br>Brazil  | 06/14   | 5.000                                    |               | 72.3790<br>84.2500 | 1291         | +0.43        | -0.40<br>-8.47             | +3.79          |
| thouse<br>the les  | 4548    | 2.00                                     |               | 94.2300            | 1231         | TM-11        | -0.47                      | +0-14          |





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MARKETS REPORT By Alan Beattle Sterling weakened against

sharp drops in UK equity prices spilled over into the currency markets. A hefty correction in the

Dow on Monday helped to drag stock market prices lower in the UK. The pound took its cue from this to fall against

European currencies, the move in turn rebounding on the dollar and pulling it lower against the D-Mark At one point sterling had lost two plennigs against the D-Mark and fell to the

DM2.77 level. But towards the end of trading it recovered slightly. It closed down against the D-Mark at DM2.773 at the end of trading in London, around half a per cent lower than its close of DM2.791 on

The dollar also took back

POUND SPOT FORWARD AGAINST THE POUND

DM1.678, down from DM weakness," he said. 1.691 on Monday. But the Several rumours have the D-Mark yesterday as lower against the yen, clos- the past few days about dollar's fall also took it floated around the market in ing down at Y121.9, one yen large sell-offs of sterling as lower than Monday's close of part of unwinding of ecu

> The currency markets across the board were playing chase the equity price today," said Jim O'Neill, chief currency economist at Goldman Sachs in

Mr O'Neill added that with the focus in recent days shifting to prospects for the euro, market participants could have begun to perceive European currencies as a rel-

"Traders might well see POUND IN NEW YORK ~<u>! abad</u> ~.

some of its losses in late the DMark as a safe haven at London trading to close at a time of equity market

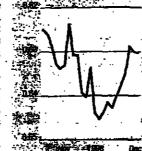
arbitrage trades. The well-known diver-

gence between the theoretical and market values of the ecu, at one point as large as 160 basis points; has shrunk to less than 50 hasis points in recent weeks. Since sterling is 12.5 per cent of the ecu, any attempt to liquidate these positions could see large sales of sterling. On Monday there was

to squeeze the gap between market and theoretical by selling ecus for D-Marks But Mr O'Neill thought good story. Everyone coniectures a story about ecu arbitrage, but I think it is

rumour that the Banque de

Sterling and dollar put in the stocks



■ The Australian dollar bounced around yesterday as the divergent forces of a still France were further trying strong economy but weak commodity prices played a tug of war with the cur-

rency.

After turbulence in late that this was no more than a European trading the Aussie closed at \$0.630, little changed from its close on Monday and up from the levels of \$0.626 that it dipped to somewhat fanciful," he said.

in Monday's US trading. ers between any of the four "The Aussie dollar has large banks in the country managed to break the link has paradoxically increased past couple of months," said Tim Harris, market strategist at National Australia

Bank in London. Mr Harris said that two Mr Harris. factors had propped up the Aussie during that time. "First, hedge funds who had margin calls elsewhere closed out short positions in the Aussie. Second, there have been persistent rumours of overseas players building up a war chest in the currency for a takeover."

The Australian government's "four pillars" policy of preventing domestic merg-



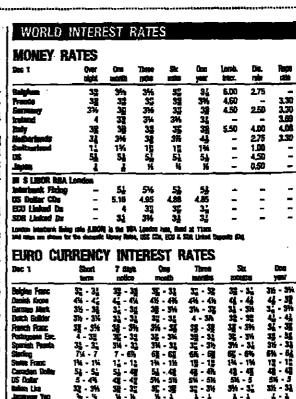
DOLLAR SPOT FORWARD AGAINST THE DOLLAR

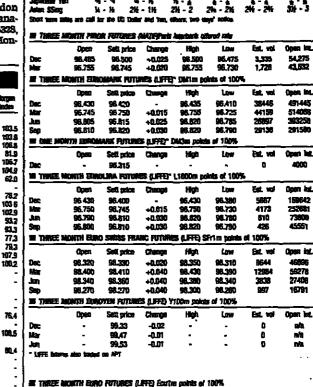
with commodities over the talk of a bid from abroad. "But this weekend [Peter] Costello, the Treasurer, said it was in Australia's interest to run its own banks," said

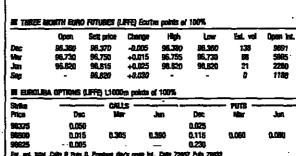
> The Canadian dollar held up well yesterday after Monday's elections in Quebec returned the separatist Parti Quebecois (PQ) to power in the province.

been seen as a drag on the "loonie" in the run up to the election. But although the PQ retained a majority in Quebec assembly, they actually polled fewer votes than the pro-union Liberal Party. This suggests a referendum victory for the seces-sionists is unlikely.

At the close of London trading yesterday the Canadian dollar was at C\$1.5328 down from C\$1.5295 on Mon







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CROSS RATES AND DERIVATIVES **EXCHANGE CROSS RATES** 21.47 497.3 11.85 269.8 13.21 305.9 4.428 102.5 11.01 255.0 0.447 10.36 3.929 91.01 19 231.5 4.317 100 5.204 120.5 9.183 212.7 5.402 125.1 12.28 284.5 4.848 112.1 6.095 141.2 8.685 201.2 2,886 352,3 1,567 191,1 1,777 216,7 0,596 72,56 1,482 196,6 0,080 7,340 0,525 64,46 1,346 164,1 0,581 70,83 0,700 85,38 1,236 150,7 0,727 88,63 1,653 201,5 0,682 79,54 1 121,9 0,820 100 1,169 142,5 18.25 4.848 8.819 2.830 10 2.962 3.363 1 8.337 2.466 0.339 0.101 2.975 1.887 7.572 2.258 3.269 0.975 3.940 1.175 6.953 2.074 4.090 1.220 9.299 2.773 3.571 1.095 5.627 1.578 4.615 1.376 6.576 1.961 1.950 4799
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PTE 4,750,000,000 Notice is hereby given that the Rete of interest for the interest period December 2, 1998 to June 1, 1999 has been fixed at 1, 1999 has been fixed at
 3,8375% and that the interest
payable on the relevant interes
Payment Date Lune 1, 1969
against Coupon No. 7 will be
PTE 190,298 in respect of PTE10,000,000 nominal of the Globel Agency and Trust Services Calbenk, N.A., London mber 2.1998 CITIBANCO' Britannia \$25,000,000 Floating Rate Notes due May 2000

For the period 30 November 1998 to 26 February 1999 the notes will bear interest at 6.98063% per agram. Interest payable on the relevant interest payment date 26 February 1999 will amount to \$1,583.00 per \$100,000 note. Global Agency and Trust Services 2 December 1998 CITIBANCO

**SMITHKLINE** BEECHAM PLC GBP 617,200,000 FLOATING RATE UNSECURED LOAN STOCK 1990/2010

above stock will carry an interest rate of 6.6250 per cent per amount for the period 01 December 1998 to

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Siena - Piazza La Lizza, 1 - 3

Banca Monte del Paschi di Siena S.p.A.

Servizi immobiliari Banche S.I.B. S.p.A. has been entrusted with the task of promoting the sale of the four start hotel complex, called Hotel Exceletor, stusted in Siona, Plazza La Lizza 1 - 3, including main turnishings and fittings, as is and in its present legal status. Located in a prestigious position, near the city centre and easily accessible, the building comprises 6 floors and 3 becoment floors, with 126 rooms, eleoping 222. It covers an area of approximately 8,000 sq.m. and was totally restored at the beginning of the 50%. The complex offers conference services with vericus sized meeting rooms, restaurant, but and suitable equipment. The business is presently retained by a firm operating in hotel management, to whom the right of pre-emption has been recognised, apart from the obligation of worsing the premises within a specified period of time in the event of the non-exercise of this right, in accordance with the prior agreement established with the Owner. The buyer will have to handle the consignment directly with the turnert meragement, undertaking, furthermore, to maintain the current employment levels of the hotel company.

Those interested in buying the property should submit fully secured putchase offers by 12,00 pm on 18th December 1996 by registered mail with return receipt sent to the following address: Servizi immobiliert Banche S.L.B.S.p.A. Via Verziere, 13, 20122 Millen - Italy.

December 1996 by registered mail with return rece S.I.B. S.p.A., Via Verziere, 13, 20122 Millen - Italy.

Procedure to be followed for the submission of offers :

Procedure to be followed for the submituelon of officers:

• the offer must be prepared according to the form available at the lifeth office of Servici immobiliari. Senche S.J.B. S.p.A. (located in Vis. Verziere, 13) where full documentation relating to the property, including the text of the agreements with the present sensed, is available;

• the purchase price, not of taxes, for the whole property on sale must be stated and the payment delive and methods, as well as the other's term of velicity (at least 60 days), must be specified;

• offers must contain the declaration that the Offeror is submitting the offer solely in his own name and not on behalf of any other person/company to be disclosed leser; furthermore, the Offeror must enciose a bank declaration that an irrevocable time deposit has been reade up to the expected explay date of the other in lateour of Bence Monte del Paschi di Siens S.p.A. for an amount no lese than 10% of the price othered. This declaration must be prepared according to the form available at Servizi immobiliare Banche S.J.B. S.p.A.;

• the Offeror must also authorise, in accordance with the itulian Privacy Lise 67586, the processing of personal date by Servizi immobiliare Banche S.J.B. S.p.A. and the communication of such date to the Owner.

The others so received shall be evaluated by Banca Monte del Paschi di Siena S.p.A. Where an other is accepted, the relevent Offeror will be notified by registered mail, in the presence of a number of offers, the Owner reserves the right to invite Offerors (by registered mail, stating thereby how to raise bids) to strend a meeting (the date of which shall be therein indicated) where higher offers can be made within the framework.

of competitive bidding. The property can be visited by appointment, evon appointment to to the Milan office of Servizi Immobiliare Banche S.I.B. S.p.A. for the atlantion of the Sa This present notice is not an offer to the public under Article 1336 of the Italian Civil Code. Therefore, the receipt of any offers as well as the subsequent competitive bidding process, if any, imply no obligation to sell the property to the Offerors. Also, no brokesage and/or advisory les is due to snyone, including in the event that any offer is accepted. The itelian version of this notice shall prevail over any other text published in any

foreign language in any non-tasian newspaper. (This notice and the disposition procedure shall be governed by italian last.)

Full documentation about the property is available also on the http://www.sib-spe.com

Şervizi kızı

Via Verziere, 13 - 20122 Milano Tel. 02-77.831 Fax 02-77.83.217 E-mail: Sales Manager:

Crédit Local de France

USD 150,000,000 Collared Floating Rate Notes due 2002

In accordance with the Terms and Conditions of the Notes, notice is hereby given that for the Interest Period from De-cember 2, 1996 to June 2, 1999 the Notes will carry an Interest Rate of 5% per annum.

The Coupon Amount payable on the relevant interest Payment Date, June 2, 1999 will be USD 25.28 per USD 1,000 principal amount of Note, USD 252.78 per USD 10,000 principal amount of Note and USD 2,527.78 per USD 100,000 principal

The Agent Bank Kredistbank

The Mortgage Bank and Financial Administration Agency of the Kingdom of Denmark (Kongerige: Dammarks Hypotekbank og Finansforvaltning) U.S. \$100,000,000

Guaranteed Floating Rate Notes due 2005 unconditionally and irrevocably guaranteed by The Kingdom of Denmark

For the six month Interest Period 1st December, 1998 to 1st June, 1999 the Notes will carry a Rare of Interest of 5 per cent. per annum, with Coupon Amounts of U.S. \$126.39 and U.S. \$2,527.78 per U.S. \$5,000 and U.S. \$100,000 Notes respect The relevant Interest Payment Date will be 1st June, 1999.

Company, London

Agent Bank

## Oil prices slip on PetroFina takeover news

MARKETS REPORT

By Paul Solman

World crude prices slipped again as the oil industry digested the implications of Total's bid for PetroFina. The benchmark crude con-

**V** tion in Tanzania.

Despite some discouraging news that South African JCI

was pulling out, the end-

November launch of Golden

Pride, Tanzania's first large-

scale gold mine, at last con-

firmed what the optimists

After decades of false

starts, obstructive govern-

Tanzania's vast gold poten-

In a continent where

South Africa and Ghana

have dominated exploration,

optimism has been growing

for the past three years that

east Africa's sleeping giant

offers some fantastic prizes.

and that - more importantly

Metals Economics Group,

a Canadian consultancy,

says Tanzania has attracted

more exploration expendi-

in non-terrous minerals

reaching \$57.7m, some 13.3

per cent of the African total.

That compares with \$59.3m

last year - only 9.8 per cent

of the total \$606.6m - behind

Over the next five years,

gold production is expected

South Africa and Ghana.

chance of being realised.

had been saying for years.

just a year ago.

week's Opec decision and the lack of cold weather in the US continue to be the fundamentals driving the market," one analyst said. Yesterday's announcemen

tract fell to \$10.06 a barrel on that Iraq would resume oil London's International exports under the United Petroleum Exchange at one Nations "oil for food"

Gold prospects now open

for business in Tanzania

day also hit prices, he said. from February 1999. The market had hoped for a longer delay.

In late trading, January Brent blend on the IPE was \$10.30 against Monday's close of \$10.46. Asarco, the US mining

an ounce: far enough below

world prices of \$300 to be

the project and other Samax

holdings recently prompted Ghana's Ashanti Goldfields

to buy the Canadian com-

Sam Jonah, Ashanti chief

executive, said this year that

subsequent consolidation

would open the way to one

of the biggest gold mines on

the continent, with an out-

put of about 400,000 troy

ounces a vear at a cost of

concerned about gold ther companies, still

prices, are playing a game of wait-and-see, and it

will not be clear until 1999

pany outright.

\$180 an ounce.

group, announced late on Monday it would suspend operations at its El Paso cop-

The company said this would result in substantial savings and the copper con-

at El Paso would be sold to other producers. "During the suspension, El Paso will be maintained so that it may be returned to

future," Asarco said. Analysts said Asarco's said: "It could put a floor announcement was likely to under copper prices if the have little impact on copper

"The move reflects the current state of the market. US producers are close to

stage, less than half its level scheme as soon as Wednes- per smelter for three years centrate market returns to a copper prices," said Jim Len more normal balance in non at Macquarie Equities. perception is that producers will follow through with pro-

duction cuts." On the London Metal Exchange, three-month conbreak-even or even losing per closed up \$4 at \$1,582 a



Nyamulilima Hill reserves situation, where Tanzanian could exceed 2m ounces. "This prospect looks des-

tined to come on stream in the next five years," said Julian Ogilvie Thompson, chairman, in June. Recent speculation Anglo-American was losing interest has been quashed, while word has spread that Australian miner Delta is

looking for new investments. Samuel Lwakatare chairman of the Tanzania Chamber of Mines, is optimistic. "We are headed for a turning point where previously the mining sector was dominated by exploration," he said, adding that the country could produce 26 tonnes a vear by 2001 - 10 per cent of

gold mining is dominated by thousands of artisanal diggers, who produce only seven tonnes a year and account for just 2 per cent of the country's GDP.

Dar es Salaam also hopes to boost this sector with Meremeta, a recent joint venture involving the Tanzania military, which will organise artisanal marketing and curb smuggling.

encouraging prospect. The joint venture between Anglo American and Sutton Resources, has the potential to produce 100,000 tonnes a year of concentrated one containing 15 per cent nickel, 1.2 per cent cobalt and 25 per cent copper, with a mini-

nificant diamond produces with exports worth about \$15m for the past two years, mostly under the control of Williamson Diamonds, a De Beers subsidiary. The government has also highlighted commercial opportunities in phosphates, salt, kaolin, coal and tin.

Nevertheless, companies still complain that high levels of bureaucracy, compli-Gold is not the only cated taxation and inadequate electric power are hampering progress.

Perhaps most irritating is the state of Tanzania's crumbling roads. "A wellmaintained infrastructure is critical to the development of the mining industry in Tanzania," says Matthew Yates, from Tanganyika

**NEWS DIGEST** 

DERIVATIVES

### UBS to switch trading in favour of precious metals

UBS said yesterday that it is pulling out of energy, base metals and electricity derivatives trading to concentrate on precious metals. The Swiss bank said it would begin immediately to wind down the operations, which are part of its Warburg Dillon Read investment banking arm. About 20 jobs will be lost, most of them in London, the bank sald that, as part of the move, the remaining preclous metals business would be integrated into the bank's

foreign exchange operations. Some sources suggested the move stemmed from a plan to reduce trading exposure. WDR said it was concentrating on how it allocated sources. The bank denied any specific problems, like the previously announced SFr1.6bn losses in equity derivatives or a SFr984m after-tax loss on exposure to Long-Term Capital Management, the US

hedge fund.

UBS was created earlier this year by the merger of ubs was created earlier this year by the merger of ubs. Union Bank of Switzerland and Swiss Bank Corporation. The commodities businesses, like the troubled derivatives business and LTCM position, were inherited from old UBS. Analysts said that the energy, base metals and electricity sectors had been a small part of UBS's derivatives trading operations. "They don't really fit with the investment bank-ing business and are probably not worth the risk," one analyst said. "UBS will see more synergies by concentrating on equities and bonds, which are a much bigger part

Putting practicus metals in with foreign exchange operations could also have the effect of making it les asy to see how each activity was performing. Paul Solman and Clay Harris

WOOL

#### Australian board voted out

Australian wool growers vented their anger yesterday at the dismal state of the wool market by voting out the board of the Australian Wool Research and Promotion Organisation (AWRAP), the wool research and promotional

Wool prices have halved this decade and Australia's wool production has fallen from 1.1m tonnes in 1990 to 630,000 tonnes. Many Australian wool growers are in deep financial difficulty.

Mark Valle, Australia's minister for agriculture, will appoint a new board. He also announced yesterday the establishment of a task force to assess the wool industry and wool promotion. Wool has steadily lost its share in the world fibre market to cotton and especially synthetics. While the board has been sacked, none of the propo-

nents of this move have any plans on where to go from here, said David Farley, managing director of Colly Cotton. A dramatic 73.4 per cent of the biggest gathering of wool growers on record declared their no-confidence in the board of AWRAP – the statutory body responsible for administering more than A\$100m a year from a 4 per cent levy on wool growers' sales.

The Woolmark Company, which was called the interna-tional Wool Secretariat until June this year, is a subsidiary of AWRAP, Stephen Wyatt, Sydney

### BASE METALS LONDON METAL EXCHANGE l, 99.7 PURITY (5 per loss

THE LEAD (\$ per torme Close Previous High/low AM Official 496.5-97.0 THE WICKEL (\$ per terme 4140-45 Total daily lumbe

EE Title (\$ per 10 III ZBIC, special bigh 993.5-94.0

22 Life All Official SIS rate: 1,8522

Price Change High Low Vol ent 69.85 -0.20 70.50 69.70 4.237 7,803 70.45 -0.20 70.90 70.45 175 2,908 70.85 -0.20 70.90 70.80 26 1.837 71.30 -0.15 71.90 71.20 9,820 35,885 71.35 -0.16 72.00 71.85 11 1,322 72.00 -0.10 72.30 72.00 103 4,288 PRECIOUS METALS

more, recently inspiring the 150,000 ounces a year at \$210 resource information unit in Perth, Australia, to describe Tanzania as having more gold potential than any other country north of the Limpopo river This interest is not a new phenomenon. Since the 1900s geologists have highlighted

Optimism is growing that country offers fantastic prizes and the

ext year could be great to triple from five to 15 at the end of November, and for mining and explorationnes a year, and maybe is expected to produce

government will involve foreign investors, writes Mark Turner

Tanzania's attractive geolments and price uncertainty, ogy, with the rich greenstone belts around Lake Victial stands its best-ever toria bearing a remarkable resemblance to the eastern goldfields of Western Australia and Canada.

What has changed is a recent turnround by a government previously characterised by socialist self-reliance and a distrust of foreign interference. A new investment code exempts foreigners from import duty on equipment and sales tax, and crucially allows the repatriation of profits.

Continual battles over ture this year than any other VAT, which increases dril-African country, including ling and analysis costs by 20 South Africa, with spending per cent, have led to a strong war of words between government and the industry, but few doubt that - in principle at least - Tanzania is

Golden Pride, a joint venture between Resolute 750,000 ounces. Anglo Ameri-Resources and Samax Gold, produced its first gold ingot to contain 1m ounces. Its

Precious Metals continued

295 1,707 11 296 - 995

E GOLD COMEX (100 Trey oz.: Stray oz.)

whether this year's activity will be replicated. Neverthe less, few doubt the potential is there - it appears more a matter of when, rather than whether, Tanzania's minerals will be exploited. Sutton Resources' Bulyanhulu project is well advanced and contains an estimated 7.2m ounces of gold, while Tanganyika Gold boasts a prospect with resources of more than

gross domestic product. can's Buzwagi is estimated That would be a profound turnround from the current GRAINS AND OIL SEEDS

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1.965 -0.039 2.005 1.930 8.927 20.938 1.970 -0.035 2.000 1.945 4.196 13.750 1.980 -0.040 2.030 1.975 2.626 10.924 2.005 -0.030 2.035 1.990 2.500 11.005 163 from the Tee Brokers' Association Mombees There was good demend at inegular rates. BP1's of all categories sold at irregularly lower rates with some with-drawals. Early knotces of brighter and mediums PF1's were irregular but on balance sold at about last levels. Later invoices were dearer by about 5-15 cents. Brighter lower madiums were deerer by about 2-5 cents but others easier by 2-8 cents. Mester and century to printer exister. 34.15 +0.08 34.40 32.30 20.144 42.200 32.45 -0.04 35.70 34.80 3.322 8.586 35.90 -0.14 37.70 36.40 1.051 6.274 40.50 -0.09 40.50 40.25 1.507 8.200 41.15 -0.44 41.80 41.85 1.770 7.918 41.95 -0.28 42.40 42.40 225 8.084 41.80

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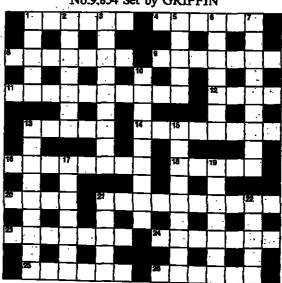
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**ACROSS** 1 Left to retire clutching \$2,000 for drink! (6) 4, 14 Ann., mad about Christopher Reeve? (3,3.8) 8 Order detectives back to

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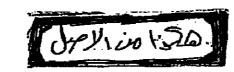
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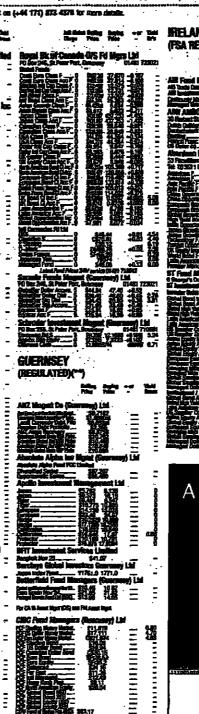
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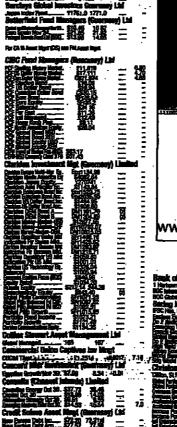
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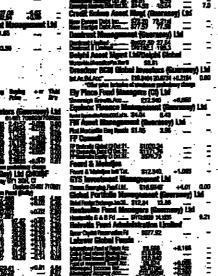
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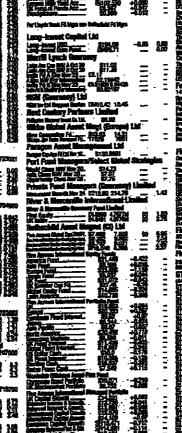
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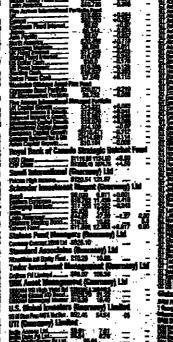
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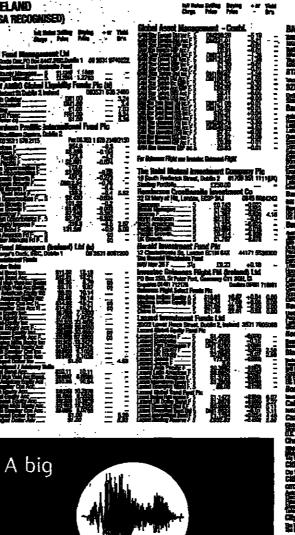


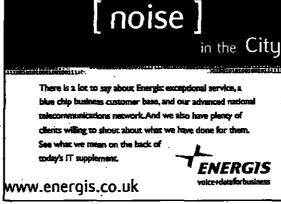




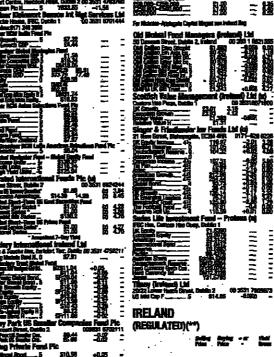


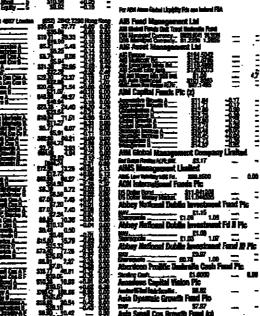








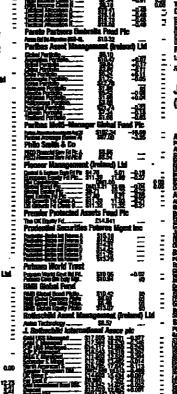






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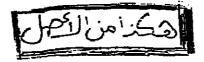
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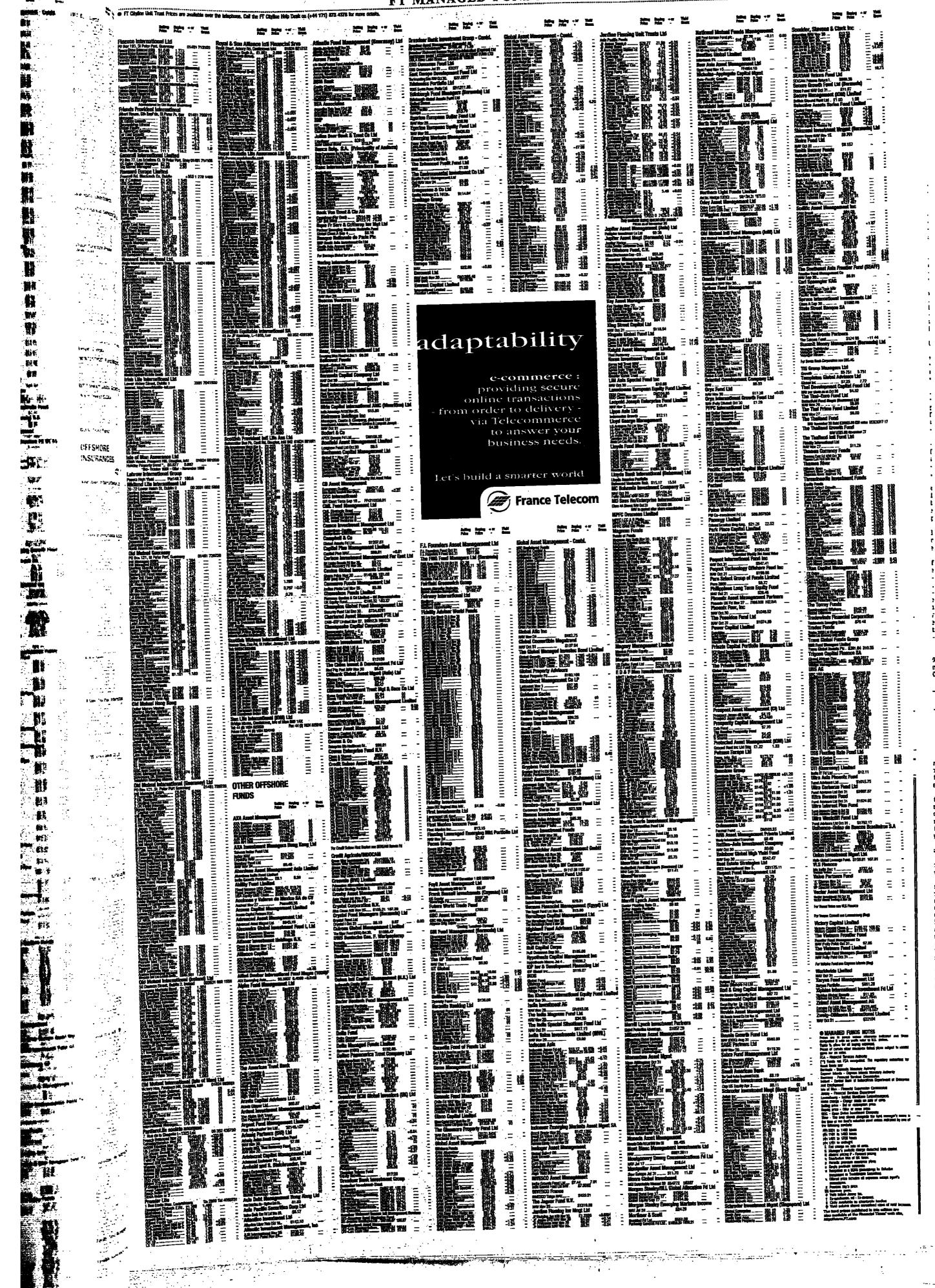


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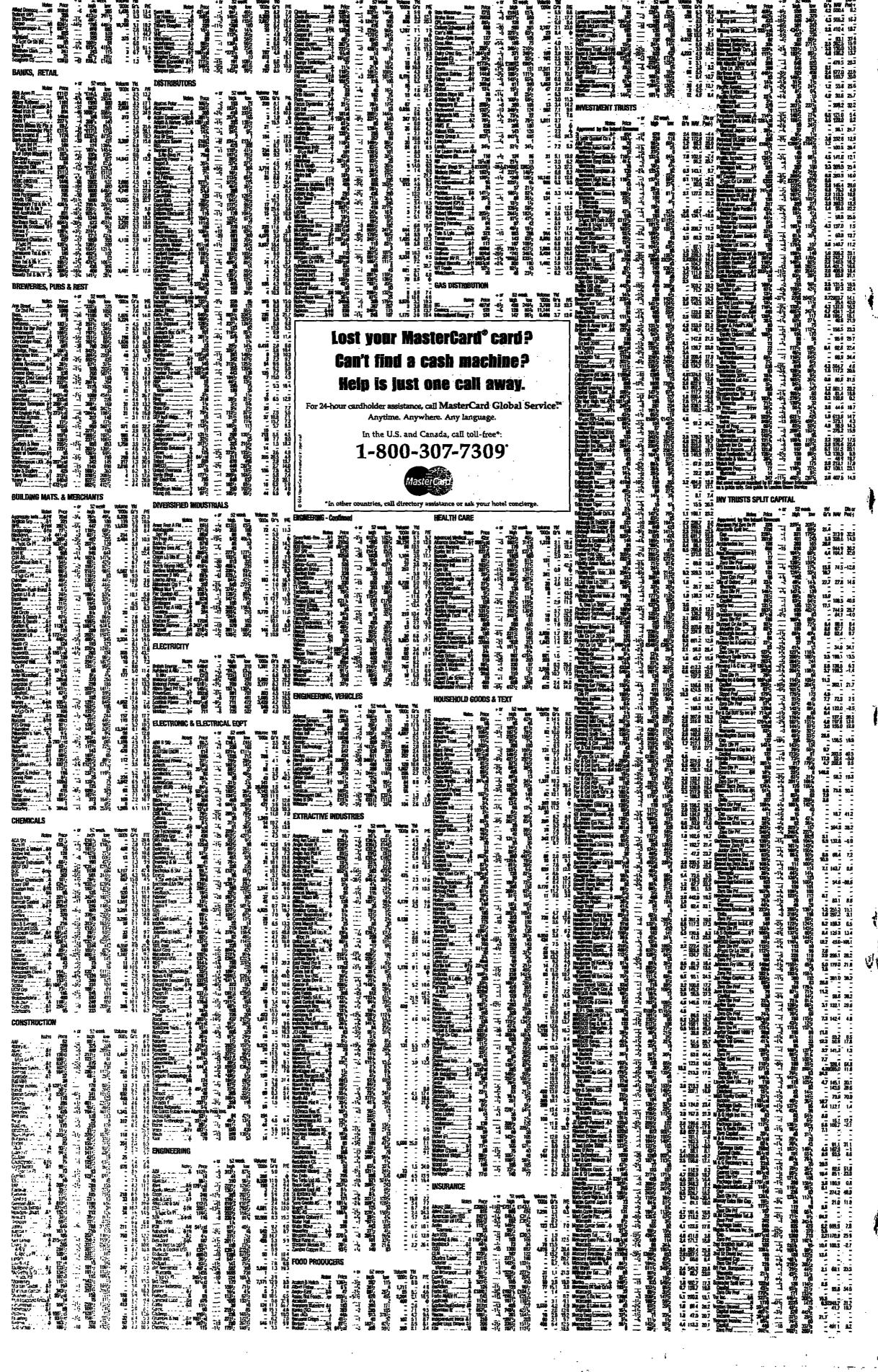
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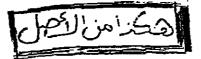


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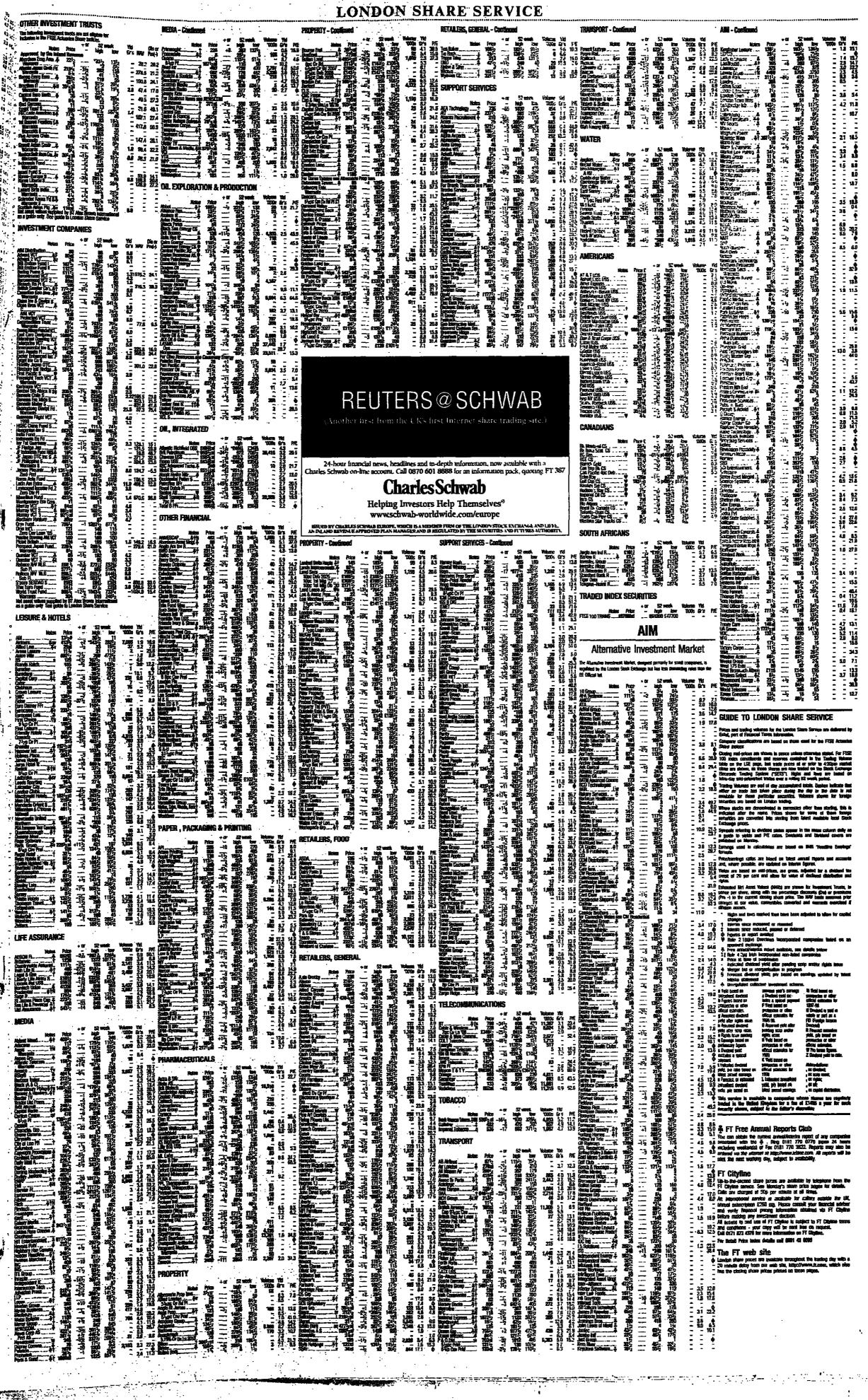


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### Footsie suffers fall after Wall Street reverses

MARKET REPORT By Steve Thompson, UK Stock Market Editor

A sharp sell-off on Wall yesterday brought a substanpected, correction across cent or 206.4 to 5,537.5. global markets.

The urge to take profits was given a further push by a series of gloomy economic reports in the UK, Europe and the US that showed manufacturing sectors were

merger activity have allowed Cap 1.2 per cent. 25.5, to investors to ignore the bad 2,039.5. news on corporate earnings.

suffered its worst percentage tial, if not totally unex- fall this year, sliding 3.6 per

It was also the third worst history. Not long after London closed, the Dow staged a powerful rally to show only a 25-point slide.

The FTSE 250, meanwhile, the US saw Hong Kong fall 4 under continued pressure. lost 1.6 per cent or 80.3 to per cent, and European mar-Interest rate cuts and 4.821.4, and the FTSE Small- kets drop sharply.

"The only surprise about Such was the extent of the the shake-out is that it has US weakness yesterday, at taken so long to materialleast at the opening when ise," said one marketmaker, Street on Monday and again the Dow dropped almost 130 who pointed out that the at the outset of US trading points, that the FTSE 100 FTSE 100 index, has risen almost in a straight line since its October 5 low point for the year of 4,648.7.

Wall Street's weakness, points fall in the FTSE 100's which saw the Dow finish 216 points lower on Monday. stemmed from some heavy selling of internet stocks. The knock-on effect from

place against a backdrop of tary policy committee. "A retailer, and Kenwood, the big bids and mergers, especautious line on rates will be electrical manufacturer.

However, it has also coincided with a constant stream of profit warnings and poor corporate results.

Equity strategists have become increasingly measy about their growth forecasts with many observers now expecting earnings to show a Standard Chartered, the decline next year, possibly mostly domestic retail banks by up to 10 per cent.

There were also doubts profit downgrades. about the chance for another interest rate cut in the UK warnings from middle rank-

cially in the oil and banking taken badly by this market," sectors. Charterhouse.

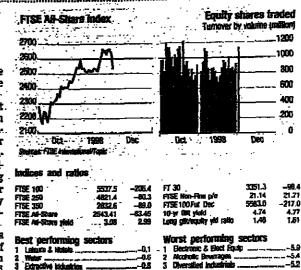
Losses in London stretched across all sectors but were especially severe in the financial areas. Banks, particularly those with close links to Hong Kong, suffered badly. Outside of HSBC and were weakened by talk of

There were also profit after next week's meeting of ing and small-cap stocks,

The recent rise has taken the Bank of England's mone notably Forminster, the

The strategy team at. Credit Suisse First Boston said: "What we have experi-. enced is an early end-year rally. Fundamental valuations, despite strong liquidity conditions, are starting to limit the scope for further performance, particularly given the pressure on corpo-

rate earnings estimates." One feature of the day's activity was the high level of turnover in equities. At 6pm 1.13bn shares had changed hands, the highest daily total since October 21.



### **Profit** fears hit Diageo

**COMPANIES REPORT** By Joel Kibazo, Peter John and Martin Brice

The prospect of profit drinks giant Diageo sent the company shares tumbling. The shares surrendered 44% or 6.6 per cent to 634%p.

Turnover was 10m. Dealers moved to unload the stock after the company was reported to have spoken of continuing weakness in some emerging markets. raising doubts about current

profit estimates. At a dinner hosted on Monday evening by UDV, Diageo's spirits arm, dealers said the company had indicated trading had been particularly difficult in Latin America recently. Analysts suggested liquor volumes in Brazil and Venezuela had fallen significantly. About 8 per cent of group profits are Equity parametrics States traded (m); derived from the region.

Several analysts are expected to shave interim profit forecasts for the half to the end of December 1998 in the next few days. However, brokers such as Schroders and SG Securities were said to have reiterated "buy" recom-

With the shares outperforming the market, profit- Dec 1 Deta based on Squity taking and a sharp market

retreat were also factors in the FTSE All-Share by 54 per

Lasmo was top volume trader among Footsie and the stock and shifted its FTSE 250 stocks as brokers earnings numbers. indulged in what one dealer referred to as the "wounded bison" approach.

been left highly exposed by the relentless slide in underespecially weak members.

Yesterday CSFB struck at duction costs. Lasmo. Although the company had underperformed of \$15 a barrel to break even

STOCK MARKET TRADING DATA

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the stock's decline yester-day. csfB snatched away its "buy" recommendation on The move came in

announcement that it is to Oil companies, especially cut 200 head office jobs in a the second-line exploration restructuring programme and production stocks, have aimed at saving £30m a year. CSFB believes reducing administration costs is not lying oil prices, and sector the way to help underlying specialists have been cir- profitability and that the downgrades for food and cling the herd looking for company should be looking much more closely at pro-

Lasmo needs an oil price

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have expressed doubts about the company's viability if Standard, which is also the price of crude stays at exposed to Hong Kong, fell current levels. The shares 17 to 627p. fell 7% to 132p on turnover of

HSBC dropped 104 to round of meetings between the bank and analysts.

Credit Lyonnais Securities is concerned about HSBC's exposure to Asia and Brazil and has downgraded its recommendation on the stock from "buy" to "add".

It said it expected to be reducing forecasts after seeing the company next week. about 5 per cent.

Amro, HSBC's house broker, had also reduced its forecasts, but Peter Toeman at the broker said he had left his figures unchanged, Yesterday, Crédit Lyon-

and is assuming \$13 a barrel nais cut its current-year for next year. Some analysts profit estimate for Standard Chartered by £45m to £775m.

Lloyds TSB fell 51% to 791p after HSBC Securities cut its 1998 profits forecasts £15.36 in response to a fall of for the group to £2,920bn and more than 4 per cent on reduced its 1999 figure by Hong Kong's Hang Seng £150m to £3,650m; to take index, where the bank is a account of bad debt provibig constituent. The stock sions, reduced dealing profwas also hit by cautious bro- its and a lower contribution ker comments before a from the developing world. However, the broker retains the stock as an "add".

#### Capita fails test

Capita was the worst performer in the FTSE 250, slipping almost 9 per cent or 51 to 521p following news that it had lost the contract to run the written section of Crédit Lyonnais forecasts the UK driving test on behalf £4.36bn for the current year of the Driving Standards that several senior manageand is expected to reduce by Agency. Nasdaq-quoted Sylvan Learning Systems said

Some dealers said ABN that it had won the contract. However, Capita was said to have told analysts that it had won 70 per cent more business this year than last year and the team at Crédit Lyonnais Securities told clients the contract loss had no effect on its forecasts.

> announce further contract wins over the coming weeks and would highlight the stock's proven ability to

would react violently to any bad news. SmithKline Beecham was

comparatively resilient within internationally traded drugg stocks as brokers responded to comments made at a dinner on Monday

forecast earnings, the shares

The head of the company's vaccines division discussed the prospects for various products, including Lyme-Rix, for Lyme disease. Goldman Sachs came away convinced that the target 15 per cent revenue growth was achievable.

SmithKline fell only 10 to 784p while Glaxo Wellcome was down 48 at £18.69 and Zeneca 105 at £24.15. Education group Nord

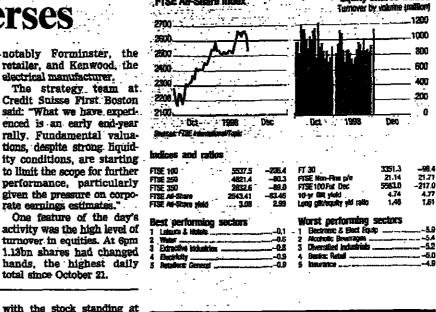
Anglia touched a new 52week low and chairman Kevin McNeany moved in and bought 30,000 shares at 158p each. The stock closed down 31/4 at 161p. Pharmaceuticals company

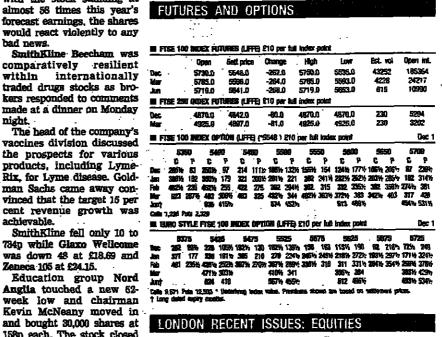
Cortecs was the worst performer in the entire market. dipping almost 57 per cent, or 15 to 111/p. This is the lowest point at which the shares have stood since the company floated in 1994. In 1996 they reached 394p.

The damage was done by the company announcing ment figures had quit and that delays had emerged in the approval of Macritonin. its main product.

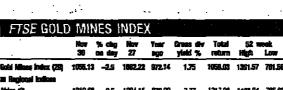
City Site Estates was up at 30%p after it said it had received a further approach, following the 26p offer from management made on November 23. Jersey-based retailer Le

The team said: "We confi- Riche was down 17% at 455p dently expect Capita to after it talked of "the most difficult market this decade".





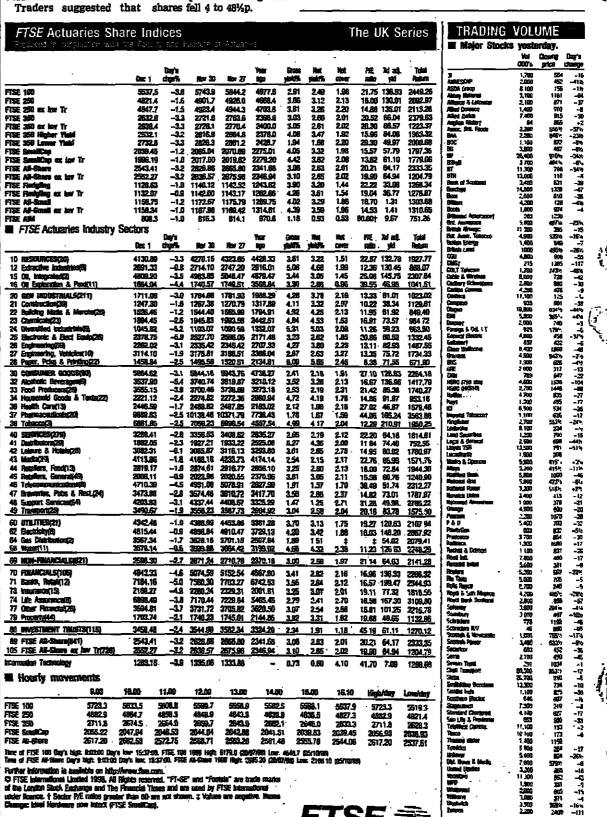
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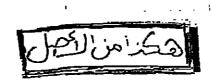


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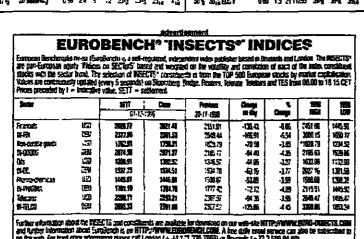
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| industrials                     | 9116.55 9333.0                                      | 26 Har   | LOW                       | Since compliation.<br>High Law                           | <b>11 MANE</b>                            | AGIMIY                                 | <del></del>  | -  | <u> </u>  | · ·                              | 9600                         |                             | <del></del>                                | •                                    | Dec 3  |   | 15<br>27 1540<br>15                              |                                    | Sect complesion<br>High Low              |                              |                               | Des Nov<br>1 30  | ilov 1998<br>27 Hagh                       |                                 | Since of<br>High  |
| Home Boots                      | 107.00 106.7  | . 60 304   | 1) (31/81) (F             | 8374.27 41.2<br>22/11/98) (9/7/3                         | ā   | (militori)<br>Por 30 I                 | io 27 Novi   | MSE<br>S   | 16er 30 1<br>nl 3540                                      | Nov 27 Hov<br>1.962 115          | 25 9408<br>M                 | ````                        | · .  | Allocal 225<br>Zay's Alger           | 14835.41<br>14837.35 Day's k                   | 1488),76 15089.<br>or 14763,88.                 | 39 1738L34                                       | 12879,97                           | 39015.9 3                                | 5.25 (MC 4)<br>Days ing      |                               | 55.24 3643.36 395<br>17's law 3662.51                      | ) 94 <b>4381.48</b>                        | 2862.54                         | 4388.4            |
| Tpersport                       | 3051.23 3077.8                                      | .,<br>6/1  | 0) (11/5)                 | 107.02 54.9<br>(5/10/98) (1/10/8)<br><b>3886.02</b> 13.2 | B   | . 689.256 1<br>27.575                  |  | 500 Piers<br>Talks<br>\$36 tinchescool               | 1,975<br>2,043<br>422                                     |                                  | 83<br>15 18306               |                             | 4  | E ACTIVE                             | TRADUIS ACTA                                   | 114   | A BIGGE  | Vot                                | <b>1889</b> : 393,410                    |                              | S TRADBIG A                   | CIBITY   | w Magest                                   |                                 | igene : '         |
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|                                 | igh 9346.53 ga403.62)<br>3.06 (\$346.21) iour 91    | (9/1)<br>16:28) 10:74-07 (92:83)<br>16:45 (93:64-38) (92:43) |                           | (9/16/96) (9 <i>/7/</i> 3;                               | M NYSE TO                                 | COMPACTO                               | AIY  | m and  | Volume<br>EST ANDVERS                                     | : 989,200,80                     | 9100                         | ·                           |  | - Surakki<br>Salena<br>- MBR:S       |  |   | lips<br>Toyolia<br>Toyolia                       | 154<br>2175                        | +15 +10                                  | Totale                       | 51G:<br>4127,                 | 207 613 -87<br>645 385 -10                                 | Ups<br>Bygnes<br>Service                   | 1163                            | +1(               |
| Septent end<br>Composite        | Poors<br>1163.63 1192.2                             | # 1192 <u>1</u>  | 9 427.89                  | 1192.20 4.4  | Hints                                     | Stocker                                | Close Day's  | Monday   | Citore  | Day's Day<br>Change chies        | <u> </u>                     | ;                           | Lates                                      | MESIS<br>  MSSI<br>  MESIS<br>  STUM | 6,710,000<br>6,240,000<br>6,175,900            | 145 -2<br>319 +5<br>130 +8<br>225 +1<br>155 -14 | Doeles<br>Randio                                 | 59                                 | -8 -17                                   | g Alegas                     | 2.793.)<br>1.883.)<br>1.094.) | 656 740 <b>-</b> 12  | Distans                                    | 1230<br>2277                    | +7<br>-8          |
| induskrata <b>l</b> ij          | 1388.06 1421.3                                      | 14 . 14.14   | 1) (947) (3<br>23 1077.40 | 7/11/96; (1/6/5)<br>1421.33 .35                          |   | 17,355,100<br>14,534,100               | 19 +1%   |  | 1376  | +12 +14                          | 3 44.                        |                             | 26 27 30 1<br>v 1998 Du                    | · AcidCa                             | 5,994,000<br>5,766,000                         | 1333 -7<br>29 -5                                | Doeles<br>Rarelo<br>Stok R<br>Thabasa<br>Yamikag | 64<br>80<br>640<br>98              | -6 -8<br>-7 -8<br>-95 -7<br>-8 -7        | 6 EMP<br>D EDept<br>9 Regels | 1,092.5<br>1,017.5<br>942.7   | 507 414.2 -201<br>739 673 -36                              | STMCre                                     | 518<br>359<br>210<br>588<br>360 | -3<br>-21         |
| · Rendal¥                       | 127.77 131.9  | (271<br>1. <b>14</b> 7.1<br>1.04                             | 95.80                     | 7/11/06) (30/6/2)<br>147/60 7.1                          | Compac<br>3 Metal                         |  |  | · IM<br>LedEnd                                       | 24 <u>1</u><br>17 <u>1</u><br>221                         | +11 +41<br>+27 +41<br>+3 +14     | يُرِنِي 2                    | Eurotoo                     |  | Tybilga<br>Mikisy                    |  | 730 -11<br>680 -10<br>470 +9                    | Setolika<br>Alpyhela                             | 98<br>78                           | -6 -7.                                   | 1 Parties                    | 771.5<br>757.9                | D4 4300 -27  | GpGTM<br>Gphps                             | 588<br>360                      | -5<br>-2          |
| Others<br>M:SE Comp.            | 571.50 583.00                                       | •  | . —                       | (147/98) (49/74)<br>180275 A.S                           | * Chaca<br>States                         | 7,998,100<br>6,996,700                 | 234 -14<br>254 -24<br>252 -15<br>447 -34<br>754 +1<br>268 -15<br>269 -15 | Operas<br>Southin<br>McPcPs                          | 206<br>114  | -25 -10                          | 5 2189                       |                             |  | GER                                  | VANY   |   |  |                                    |  | UK                           |                               | Dec. No.   |  |                                 |                   |
| Assex Comp                      | 663.58 673.93                                       | 77 1992  | 7 (8710)<br>7 583.75      | 17000, 25440<br>78387 .5943                              | Amore                                     | 6,579,100<br>8,478,400<br>5,883,100    | 751 +1<br>582 -1%<br>29% -1%   |  |   | -14 -4<br>-14 -2<br>-15 -2       | 1                            | -                           | /\ :                                       | : <u> </u>                           | Dec<br>1                                       | 30 S  | 7 Kigh   |                                    | Since compilation<br>High Low            |                              |                               | Dac 140v<br>1 30   | Hor 1998<br>27 High                        |                                 | Since D           |
| HASDAD Corp                     | 1949.54 2016.44                                     |  | 4 1419.12                 | 22/4/98) (16/7/9)<br>28/18/44 54/8                       | 7 ME RASIDAQ                              | TEACHER AC                             | TEATY  | <u>.</u>   | Volume  | 1,114,518,00                     | <b>4180</b>                  | $\mathbf{T}$                | $\vdash \vdash$                            |                                      | 986.25. Day's lov                              |   | 68 817LA3  | 3896.08                            | 8171.A3 93                               |                              |                               | ಷ್ 5 ಸ್ <b>0.9 52</b><br>ಕರ್ಮನ191                          | 42 <b>6178.50</b>                          | 464B.70                         | <b>5</b> 12       |
| ' Ressell 2000                  | 397.75 4 <u>02.0</u> 9                              | (27/1:<br>Li 491.4<br>121/                                   | 1 310.28                  | 7/11/98) (9/10/74)<br>491.41 123.3<br>21/4/98) (7/13/93  | - ACIIVE                                  |  | Close Day's  |  | Ziber   | Day's Day's                      | - 1140                       |                             |  | E FRANKE                             | ORT TRADESS A<br>STOCKS                        | CTIMIY  | To preced  | T MOVERS                           | Volume : (                               |                              | ON TRADEN<br>VE STOCKS        | ACTIVITY   | T 230828                                   | Volum<br>MOYERS                 | DE : 1,           |
| •                               |   | •  |                           | -u-sud friese  | Eggbend<br>DeliCrap                       | tracleci<br>27.159.600                 | price change<br>25% -6%  | )  | pite  | change cago                      |                              |                             | T:   | Thestay                              | Stocks (                                       | itan Day's                                      | Tuesday  | (Doce                              | Cybradic cyde<br>Cybradic cyde           |                              | State                         |  |  | Close<br>pirce                  | Cir<br>Cir        |
| # RATIOS                        |   | Nov 27 No  | 20 Nov                    | 13 Year ago  | DeliCrop<br>Micst.<br>— Intel             | 24,769,508<br>17,536,400<br>15,739,700 | 107% ~2%   | Activace<br>Holywent<br>SanctuceCo                   | 24<br>mp. 20%<br>18%                                      | +3 +74.<br>+3% +11.              | 5                            |                             |  | Dt Bt<br>Desich                      | 723,116 1<br>897,451 1<br>906,590 1<br>481,307 | 00.1 -48<br>\$25 -8.8<br>\$25 -8.3              | Ope<br>Skrbeg<br>Mct/960                         | 112<br>550                         | +4 +3<br>+15 +2                          |                              |                               | 360 910344   |  | 30%<br>108%                     |                   |
|                                 | Ind. Div. Yield                                     | 1.63 1.<br>Nov 18 Nov  | 86 1.8                    | 1.74   | Smilde<br>Armer                           | 14,426,700<br>14,476,800<br>13,176,900 | 754 -64  | Geniez<br>Doupt<br>Broken<br>DoubleClic              | 25%   | +1% +44<br>-94 -25               | 1800                         | 28 24 25                    | 25 27 30 1                                 | BASF - Sleens                        | 481,307<br>435,539 1                           | 61 -32<br>148 -32                               | Downs<br>Drywk<br>Basav                          | 24.8                               | -24 -8<br>-110 -8                        | Sebe                         | 20.733<br>20.504              | 780 210 -8<br>940 2537 -12                                 | #3gm<br>Downs<br>Cultures                  | 204<br>114                      | +:                |
| S&Pind.                         | Olv. yleid<br>P/Eradio                              | 1.25 1.<br>33.63 32  |                           |  | Wridte<br>Applies<br>Rignell              | 11,324,100<br>7,850,200<br>7,452,300   | 741 -54<br>455 +165<br>59 -32<br>564 -26<br>164 -194                     | Spyglese<br>Visio                                    | : 40%<br>23%<br>19  | -125 -24:<br>-54 -21:<br>-44 -19 |                              |                             | v 1998 Da                                  |                                      | 429.408  | 36 -1.1<br>73 -1.7                              | BaltisPt<br>trainIPt<br>Possche                  | 1200<br>720<br>133<br>3500<br>885  | -110 -8<br>-65 -8<br>-10.5 -7<br>-270 -7 | 3 Bercheph                   | 17.510.<br>15.543             | 940 1697 +i'r  | TURREYOR ATT                               | 171:<br>5<br>104                | -                 |
| INDEX                           | FUTURES   |  | _                         |  |   | _                                      | _  | -  | ·   |                                  |                              |                             |  | RME                                  | 276,831  | 84 -4.4<br>88 -285                              | Linda  | \$95<br>                           | -57 -7:                                  | E Lingto T                   |                               | 970 791 -514   |  | 40                              | -                 |
| W SSP 500                       | Open  | Latest   | Change                    | High   | Low                                       | Est vol.                               | Open Int.  | = 010 4  | 0 (206 x lastes)  | Open                             | Sett Price                   | Change                      | High                                       | Law                                  | Est. vol.                                      | Open int.                                       |  |                                    | Open                                     | Sett Price                   | Crange                        | Hgh  | Low  | Est. vol                        | L                 |
| Dec<br>Mar                      | 1182.40   | 1156.70<br>1174.10   | -5.80                     | 1162.70  | 1153.20                                   | 115,639<br>19,594                      | 383,797<br>40,817  |  | . 3   | 819.0<br>810.0                   | 3680.0<br>3689.0             | -164.5<br>-164.5            | 3819.0<br>3810.0                           | 3670.0<br>3683.5                     | 117,719<br>149                                 | 187,061<br>2,805                                | Dec<br>Jan                                       |                                    | 705.00<br>703.00                         | 694.00<br>691.25             | -25.75<br>-29.75              | 705.00<br>743.00   | 684.25<br>690.50                           | 40,088<br>313                   | <br>3             |
| Dec Dec                         | Open<br>14820.0                                     | Sett price<br>14890.0  | Change<br>-50.0           | High<br>14940.0  | 14780.0                                   | Est. vol.                              | Open int.<br>180,858   | E DAX  |   | 0.03                             | 4770.0                       | -259.0                      | 4975.0                                     | 475B.5                               | 36,707   |   | ₩ SOFTE  | <u></u>                            | 6950 0                                   | 6789.0                       | -531 0                        | 7015.0   | 6735.0                                     | 45.789                          |                   |
| · .                             | 14790.0<br>Mas in privious day.                     | 14830.0  | <b>-60.0</b>              | 14860.0  | 14730.0                                   | £063                                   | 19,449   | Hist   | 5   | 002.0                            | 4809.0                       | -266.5                      | 5014,0                                     | 4802.5                               | 419  | 78,508<br>5,745                                 | Dec<br>Mar                                       |                                    | 6380 U                                   | 6798.0                       | -331.6                        | 7028.0   | 6776.0                                     | 2.554                           | į                 |
| WORL                            | MARKETS   | S AT A G   | ANCE                      |  |   |  | <b>ا</b>   |  |   |                                  |                              |                             |  |                                      |  |   |  |                                    |  |                              |                               |  |  |                                 |                   |
| Country                         | index   | Dec Mov<br>1 30  | Nov<br>27                 | 1998<br>H <b>ig</b> h                                    | 1998<br>Low                               | <b>*</b> 1                             | Web ∳ PAE  | Country  | lacies  | · Dec                            | How<br>30                    | No=<br>27                   | 1998<br>High                               | 1998<br>Law                          | ¥ %  | 4 条院  | Country  | index                              | Dec<br>1                                 | <b>!tpr</b><br>30            | Nov<br>27                     | 1996<br>High   | 1998<br>Low                                | <b>*</b> 1                      | Yield             |
| Argentina                       | General 1   | 9558.95 18958.18   | 19814.50                  | 3496.47 23/3   | 12303.14 1                                | <b>19</b> 3                            | 24 13.3  | Hargery<br>Medica-sta                                | Bux<br>el congenies held                                  | 5500/<br>sp heat as 1            | 44 5676.32<br>to gazhego fai | \$002.00<br>breed declare o | 9018.36 23M<br>97 Nike Street 46           | 3775.102 i<br>d other European b     |  | R.  | Portugal   | 54L 39<br>PS 20                    |  | ri 4750.95<br>ps 10694.61    |                               | 6176.89 22.4<br>14382.99 22.4                              | 3589.98 37<br>9114.51 2/1                  |                                 | 2.08              |
| -                               | All Mining  | 2734.1 2773.3<br>603.0 613.3                                 | 614.7                     | 2881.40 164<br>713.10 234                                | 2458-25 1<br>499.90 3                     | 1/2                                    | 37 21.3  | jedie  | 25E Sens.<br>Catal 500                                    | 2804.1<br>580.1                  | 2810.66<br>75 581.90         | 2783.10<br>557.57           | 4290.96 21/4<br>815.82 21/4                | 278418 2<br>557.00 2                 | 90°10  | тв  | Repts  | RTS                                | 67.                                      | 73 71 65                     | 71.57                         | 411.81 S1  | 38,53 5/1                                  | 0 :                             | m                 |
| , Assiria                       | decens operator AAI<br>Credit Akileo<br>ATX Index   | 14 (±<br>1083,48 1132,53                                     | 89                        | 584.34 285<br>1628.58 265                                | . 345,44 8                                | /10 1.                                 | 8 12.9   | independe  | Jainte Com  | 387.                             | 73 386.27                    | 327.12                      | \$54.10 2/2                                | 254.83                               | 7.49 2.55                                      | 258   | Analysis hole<br>Stegapore                       | SES #4-5                           | pore 377.                                | 39 391.31                    | 385.03                        | 497.98 19/3  | 253.20 49                                  |                                 | 231               |
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| ř                               | Metals Minted :                                     | 3190,65 3168,501<br>390,50 8343,671                          | 3309,09<br>6488,30        | 4390.01 10/3<br>7822.30 22/4                             | 2500,18 3<br>5395,78 5                    | 1/8<br>/10                             |  | Baly   | BCI Cook 30<br>Banca Coo I                                | bj 1368.1                        | 4 1436.79                    | 1429.89                     | 388.90 207<br>1854.36 7/4                  | 248.51 9<br>1063.58 9                | Y10  | 25.5  | South Horse                                      | КолнаСтар                          | x 445.                                   | 96 451,88                    | 447,00                        | 574.35 2/3   | 2290,00 16                                 | <del>5</del> 1                  | 13                |
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### STOCK

### Season of goodwill heralds early headache

**WORLD OVERVIEW** 

December did not usher in a season of goodwill for equity investors, as a ripple effect carried share prices lower round the world, writes

The Dow Jones Industrial Average followed Monday's 216-point drop with another three-digit loss in early trad-

Hong Kong dropping below 10,000. The Singapore and Manila markets were also sharply lower.

Europe had that bad international background to contend with but it also faced some poor economic news in the face of five purchasing managers' surveys - in the UK, Germany, Italy, Denmark and Sweden - which

response to Wall Street's activity was declining. The and investors have realised have come in spite of highly overnight weakness, with same conclusion could be that not all are all they're shaky fundamentals. the Hang Seng index in drawn from the US purchasing managers' report. In the face of that pessi-

mism, the latest merger mation of the Exxon-Mobil deal. Total's bid for Petrofina and talk of a Sanofi/ Synthelabo link-up, failed to bring the required cheer. The profit-taking that had been noticeable on Monday continued. "Maybe we've

cracked up to be." said David Bowers, European equity strategist at Merrill

Analysts are generally

agreed that the rally that egan in early October had carried share prices too far. But they differ on how far bourses need to correct. greatest in the emerging markets, where some of the

European oil comean

Share origins relative to their respon

"We do expect a sizeable markets [10-15 per cent] omy," says Geoffrey Dennis, global emerging markets equity strategist at Deutsche Bank Securities, "However,

the lows of September 11 should not be breached." Figures from FTSE International show that Asian markets once again in November, with Indonesia and Thailand the two best performers in dollar terms over the month, just as they were in October.

The worst performing markets of the month were a more mixed bunch. The weakness of the oil price marked out Norway, which fell 7.4 per cent, while Mexico, which had to raise short-term interest rates during the month, dropped 6.4

24.48 or 2.9 per cent to finish

at 820.48, adding to a 2 per

cent fall on Monday. The

market had previously risen

seven days in a row, putting

on a total of 68.76 or 8.7 per

the banks, which had under-

pinned the exchange's prog-

ress last week.

EMERGING MARKET FOCUS

are glddy with delight about a Kuala Lumpur stock maxket that has almost doubled It does not matter to them

that the rally has been orchestrated by the authorities in an attempt to enrich a corporate sector hit hard by the regional financial crisis. Analysts say many inves tors are on too good a high to notice some of the best performers could be bust.
"It's a market flourishing in

oxygen tent," said Dominic Armstrong, head of research at Jardine Fleming. The composite index has surged from a low of 262.70 on September 1 to 518.75 at yesterday's close. The advance came after the authorities trapped billions of dollars in the country by imposing capital controls and barring foreign inves-tors from repetriating profits

from the sale of shares for a Santander fell Pta175 or 5.9 per cent to Pta2,775 on top of By subsequently lowering a 2.8 per cent fall on Moninterest rates, the govern-ment made the stock day, BBV, which lost 3.6 per cent on Monday, fell another exchange the best place for Pta180 or 5.7 per cent yester the constrained investors to day to close at Pta2.150. STOCKHOLM also suffered put their cash. But the money to be made in the a fall induced by the profit short term does not reflect takers. The general index

> rate fundamentals. "People are not buying because these are good stocks," said Kostas Pa tou, senior economist at Kim Eng Securities. "They are just throwing money at the

strong economic or corpo-

Lai Tak Heong, research director at SG Research, said retail investors were entranced by the fact that they could afford M\$1.50 stocks that cost M\$150 before the economic turnoil began last year. They did not realise the shares were now only

worth 10 sen, if that, Already big names, such as Proton, the national carmaker, are scouting for potential buyers. And Abdul Rashid Hussain, the country's dominant financier,



he would have to sell control of his operations to the govfinancial crisis.

Domestic investment may push the market to between 600 and 700 points, analysis say, but to go much beyond that will take outside funds. And most foreign investors will not consider committing themselves further to Malay sia until the capital controls

Overseas investors are expected to withdraw en masse when the one-year restriction on repatriating profits from the sale of shares ends next September. They are angry that Malaysia temporarily trapped

Mr Lai of SG Researce says their minds can be changed only if the government uses the capital con-

don't like what they see, we will see money flowing out, Mr Lai said.

### Wall Street turns back to high-techs

Wall Street shrupped off a weak opening, as investors returned to high-tech shares and other sectors after Monday's sell-off, while blue chips continued lower, writes John Labate in New York

Early in the day, the largannounced, as Exxon and Mobil confirmed they had reached a takeover agreement. Exxon, a Dow stock, fell 4.5 per cent to \$71# while Mobil lost 👫 to \$85%.

Other oil stocks moved lower, with Dow member Chevron off \$14 to \$824. Oil service stocks were also sold. with Schlumberger down

The Dow Jones Industrial Average was off more than trading before the rebound in sentiment took hold by midday. By early afternoon the Dow was down 19.05 to 9,097.50. But the broader 6,889.50. Standard & Poor's 500 index

Firmer computer-related shares helped send the Nasdag composite 18.05 higher to 1,967.59. Microsoft gained \$311 to \$12511 while Sun Microsystems surged more than 5 per cent to \$77%. Semiconductor shares also pushed higher, with Micron Technologies up \$14 to \$42%. Apple Computer surged more than 8 per cent

shares continued lower, with on from Wall Street's midthe Russell 2000 index down morning fightback.

1.67 to 396.08. As stocks recovered. Treasury bonds moved off morn- gained 35 centavos to 23.40 ing highs. By midday the pesos, benchmark long bond was in higher to 102%, yielding 5.068

Banking shares continued hattan down \$1% to \$624.

Nine West, the specialty retailer, rose 3.5 per cent to espa index was off 247 or 2.9 \$12# after announcing a per cent at 8,384.

### Sanlam slips with all share

SOUTH AFRICA

Shares in Johannesburg continued to lose ground and at the close the all share index was off 238,2 or 4.2 per cent at 5,387.7 to extend its decline to 318 points in three

Financials fell 5.2 per cent to 8,296.8. The insurance secwhich floated at R6, fell 32 cents to R5.67 on its second day of trading.

Industrials lost 4 per cent to 6,038.8 and golds shed 6.3

#### would close about 70 stores. Starbucks gained \$3% or more than 7 per cent to \$49% after the coffee chain released its November samestore sales.

internet stocks were also on the mend. Investors returned to Amazon.com. sending the online book retailer up \$8% to \$200% despite a downgrading by analysts at Everan Securities. Books-A-Million, the book retailer that rallied last

website, fell \$1% to \$28%. TORONTO ignored the early weakness on Wall Street and pushed higher on the back of a strong run in the foreign exchanges for the Canadian dollar.

There was good demand 100 points in the first hour of for the heavyweight sectors from the opening bell which left both banks and golds sitting on solid gains at noon. The 300 index rose 45.68 to

> Royal Bank of Canada put on C\$1.05 at C\$76.55 and Toronto Dominion added C\$1.15 at C\$52.50. Among golds, Placer Dome rose 90 cents to C\$23.15 and Barrick 65 cents to C\$31.15

> Among industrials. Northern Telecom improved C\$1.05 to C\$70.65. MEXICO CITY reversed

early losses to rack up a gain of 8.41 to 3,778.29 on the IPC index at midsession. Brokers said that most of

the start of the session.

SAO PAULO, hit by severe profit-taking on Monday, gues, which fell steeply on continued to slide lower. Brokers said sentiment had to weaken, with Case Man- been hit by heavy dollar outflows in November.

At midsession, the Bov-

DM68.25 in spite of the group's claim that its could have synergies of

DM205.95

Elsewhere among the chemicals groups, Degussa was DM3.60 lower at DM81, spite of reporting record earnings for the fourth con-

Car stocks were hurt by dollar weakness. BMW turnbled DM94 to DM1,205, also hit by profit-taking and a report about discord among top management about the future of its troubled UK subsidiary, Rover Group. DaimlerChrysler lost DM5.90 to DM152.65 and Volkswagen was DM10.10 lower at DM128.50.

Banks did not escape the ressure. The hard-hit HypoVereinsbank lost. DM12.80 to DM135.20. Among the smaller stocks,

recycling groups Sero Entsorgung and Loesch Umweltschutz plunged on news that senior executives FF7740 in heavy turnover of had been taken into custody as part of an investigation into possible tax and securities violations. Sero finished DM10 lower at DM31.50 and DM26.95.

AMSTERDAM fell steeply

Financials did most of the damage, running into heavy profit-taking, ABN-Amro fell F1 2.90 or 7.4 per cent to traded. Aegon shed Fl 12.10 at F1 192.50 and ING came off

Akzo Nobel clawed back FRANKFURT crumpled 5 from a session low of Fl 75 to close a modest 10 cents easier at F1 78.30 after an upgrade to outperform by Deutsche Morgan Grenfell, which set a target price of

Trading group Hagemeyer, which faced a round of broker downgrades on Monday, \$1.20n a year within three F1 6.20 to F1 60.90 for a years. Schering, which two-day decline of more than

### Total bid sends Paris lower

A severe shakeout for oil giant Total plus a further round of widespread profittaking sent PARIS steeply lower and left the CAC-40 index off 155.0 at 3,688.34 for restructuring plan that a two-session setback of 6.5

> Total crashed 12.3 per cent in heavy volume after the group confirmed that it was taking a 41 per cent stake in Petrofina and planned to put in a bid for the rest of the Belgian oil leader.

With analysts arguing that Total was effectively paying too high a price, and amid concern the deal would not be earnings positive until

THE DAY'S CHANGES

| Frankfurt |      |
|-----------|------|
| Amsterdam |      |
| Zurich    | 4.2  |
| France    | 4.0  |
| Milan     | -3.9 |
| Madrid,   | 2.9  |
| Stockholm | 2.7  |
| Helsinki  | -2.2 |

2001, the shares ended off FFr87 at FFr618 in turnover of FFr3.1bn.

In Brussels, though, Petrofina showed a dazzling turn of speed in an otherwise severely depleted market. It surged BFr2,625 or 18.4 per cent to BFr16.875 in solid

STMicroelectronics tumbled FFr39 or 9.8 per cent to FFr359. Alcatel lost FFr12 at FFr1.4bn in spite of a post-tive mood at Salomon Smith Barney, which raised its target price by FFr10 to FFr850. Rhône-Poulenc fell But many small-company the improvement followed FFr20.10 or 7.1 per cent to

FFr263.4 as investors showed their disappointment at the in heavy volume with the Telmex, off 10 centavos at news that the group's AEX index ending off 51.88 he start of the session, merger with Hoechst of Gerat 1,048.73. many will not take place in full for two or three years.

Construction group Bouy-Monday on news of a big stake changing hands, rebounded FFr103 to FFr1,163 as takeover hopes F1 7.60 at FL 101.90.

per cent lower, hit by profittaking, dollar weakness and Wall Street's early tumble. The Xetra Dax index fell 248.96 to 4,777.18.

Hoechst dropped DM4.25 to F1 92. with France's Rhône-Poulenc wants to take a stake in the merged company, to be caled

#### closed 2.7 per cent down at MILAN shares dropped Ericsson, the telecommusharply across the board late in the session, mirroring the decline on other European bourses and Wall Street.

The Mibtel index closed 871 or 3.9 per cent lower at The FTSE Eurotop 300 index fell 43.63 or 3.79 per cent to 1.106.30. See Euro Prices page.

Monday, was a rare firm fee-

ture rehounding 80 cents to

F1 53.10, although volumes in

21.508 after touching 21.376 at one stage. Parmalat, the food group,

fell victim to profit takers for the second day running. It lost Liss or 6.1 per cent to close at L2,989, compared with its Friday closing price of L3,374 MADRID declined for the

second successive day as bank stocks suffered again.

mications group, which had nearly doubled in value in less than two months, dropped SKr5.50

ZURICH pulled back as recently favoured banks took the brunt of the selling and the SMI index finished 298.8 lower at 6.784.3.

UBS fell SFr26 to SFr394 and CS Group gave up SFr14 ers, Zurich Allied slumped SFr70 to SFr927, Swiss Life lost SF176 to SF1900 and Baloise was SFr100 lower at SF11.200.

Written and edited by Michael Morgan, Jeffrey Brown,



"The swiftness and severity of the decline in the Malaysian market has not been seen since the last global depression." Mr Rashid said. "Malaysia has suffered a loss of as much as M\$600bn [\$109bn] on market

are lifted.

trols to put the economy back on track. "Come September, if they

Sheila McNulty

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Ensuring the future for those who shape it."

### HSBC leads Hong Kong slide

day, was suspended yester-

announced it was seeking

The construction sector overall remained solid, down

companies slumped. Daisue

Construction suffered the

biggest fall on the day, down

14 per cent or Y13 to Y77.

Haseko dropped 12 per cent,

or Y8 to Y59, in very heavy

protection from creditors.

cent. Analysts noted that it day after the company was the first time since November 13 that the index had dipped below the 10,000 point level. HSBC dragged the market only 1.2 per cent, but weaker down with a fall of HK39 to HK\$189.50. The property sec-tor was also hard hit, losing

5.5 per cent. Cheung Kong

fell HK\$4.25 to HK\$51.50 and

Sung Hung Kai Properties lost HK\$52.75. China-linked shares

ably resilient in the face of ably resilient in the face of Nippon Credit Bank, the sell-off on Wall Street which confirmed it was con-

fell for the third day run-

The main lenders and remained under pressure. banking shareholders of JDC Red chips fell 3.6 per cent also suffered. Mitsui Trust while H shares slid 5.8 per fell Y10 to Y155 in heavy trading. Asahi Bank dropped TOKYO proved remark- Y11 to Y459.

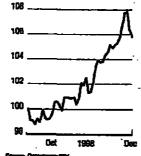
which confirmed it was conand another big bankruptcy
in the construction sector,
writes Paul Abrahams.

The Nikkel 225 Average

which confirmed it was considering merger negotiations
with Chuo Trust, was
unchanged at Y174, but
Chuo fell Y5 to Y425

which confirmed it was concomposite index finished
47.85 or 3.4 per cent to
1.358.70 on the Straits Times
index on profit-taking.

Property lad the fallent



Goldman Sachs, continued to climb, reaching another all-time high, up Y150,000 at Y4,850,000. NTT, which has started roadshows for its fourth share issue and still owns 67.1 per cent of DoCoMo, rose Y11,000 to index

MANILA joined in the regional downturn and the

the retreat, falling 4 pesos or

- Australia's third-quarter balance of payments deficit came in higher than expec-ted - combined with further profit-taking among banks to severely deplete sentiment. BEP fell 37 cents to A\$12.28. In banks, Westpac, which went ex dividend, lost 24 cents to A\$10.16 as sector

ANZ gave up 24 cents at A\$10.27 for a two-day decline of 7.5 per cent. WELLINGTON ran into selling late in the session to close off 41.33 or 2.1 per cent at 1,950.01 on the 40 capital

consolidation hopes faded.

NZ Telecom shed 13 cents In Osaka, the OSE index to NZ\$7.92 and Carter Holt closed down 60 points at Harvey fell 10 cents to N231.7L

SINGAPORE, up 8.5 per

CityDev fell 60 cents to One of the few sectors to 5.8 per cent to 65 pesos fol- S\$7.25 and DBS Land 12 ning down by a bare 0.32 per rise was telecommunical lowing a local newspaper cents to S\$2.23. Creative cent or 48.29 at 14.835.41, tions, NTT DoCoMo, recently report that businessman Technology came off \$\$2 to after trading between recommended as a buy by Lucio Tan was reviving his \$228.30.

#### **ASIA PACIFIC** company from its chairman Eduardo Cojuangeo. Shares in HONG KONG the more representative Niktumbled 4.1 per cent, tripped kei 300 down 0.2 at 227.8, up by Wall Street's over- while the Topix index of all SYDNEY fell 1.4 per cent with the All Ordinaries night losses and concern first-section shares eased index off 89.2 at 2,734.1. Wall that weak local fundamenjust 1.24 to 1,142.36 Tratals had failed to justify remained light at 383m. just 1.24 to 1,142.26 Trading Street's heavy overnight fall and negative economic news JDC, the medium-sized recent market gains. The Hang Seng index fell construction group, which 426.47 to close at the day's low of 9,975.85, taking its loss over two days to 7.3 per had been the second most heavily traded stock on Mon-

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FINANCIAL TIMES SURVEY

# VDIA: INFORMATION TECHNOLOGY

Supplement to the FT-IT Review

India's silicon cities

### New IT mantra attracts a host of devotees

The country has become one of the world's main centres for offshore software development work, reports Paul Taylor

Information Technology and almost everyone is chanting it.

The success of India's export-led software development industry has helped to put IT at the top of the political agenda and turned it into a model for the modernisation of an otherwise troubled economy.

"Everyone is talking about IT," says Sudheendra Kulkarni, a member of the prime minister's office and one of the driving forces behind the recently published report from the National Task Force on Information Technology and Software Development which envisages building Indian software exports into a business worth at least

\$50bn a year by 2008. While India's BJP-led coalition government has made fostering software development and the domestic IT industry one of its top priorities, state politicians have woken up to the potential economic and other benelits of attracting new IT investment.

Almost every Indian state has adopted its own IT development policy, including steps to encourage the use of computers in government.

Meanwhile, investors and senior industrialists have watched as the profits and share prices of India's leading domestic IT groups have soared, turning a new generation of entrepreneurs into

aspirations of many young

Charles Wang. Today, in cities such as Bangalore, Bombay, Delhi tional Technology Park, and Madras, as well as more than 70,000 people emerging centres such as Pune and Hyderabad, leading Indian software companies battle with their US and European IT rivals to hire the brightest and best engineers each year from the India's premier universities and technology institutes.

When Bangalore, India's

Financial Times Review of Information Technology

### **SPECIAL REPORT**

☐ India's software exports; IT multinationals' role, pages 2 and 3.

□ Sovernment initiatives; rural India approaches the info highway, page 4. ☐ Prospects for India's IT Industry; cases studies,

India has a new mantra - millionaires and fuelling the unofficial high technology capital, hosted a recent five-Indians to become the next day IT.Com 98 exhibition, Bill Gates, Larry Ellison or opened by prime minister newly completed Interna-

> turned up every day, including thousands of students. So many students came to the show in India's southern state of Karnataka, many of miles overnight, that the organisers complained that potential investors could not

At the end of the show one official told the local paper: "Whether we have succeeded in attracting investors to Karnataka or not, we have definitely succeeded in creating potential IT professionals from the state."

iust as valuable because India will need a an expanding supply of IT professionals if its software development industry is to continue to grow at the present 50-55

although still small by international standards, has been growing rapidly since the mid-1980s, fuelled by domestic deregulation, entrepreneurial flair and the soaring global demand for low-cost, high-quality software and services which have turned India into one of the world's main centres for offshore software development work.

to an expanding international customer list which includes Japanese, South Ultimately, that may prove Korean and south-east Asian clients as well as those from North America and Europe

on the basis of quality, speed and reliability, innovation and skills as well as price. Many other IT companies per cent annual rate. from the US and Europe, The Indian industry, including Texas Instruments, Motorola and Oracle from the US, have established captive research and

> India. Recent additions to the roster of foreign investors include Germany's SAP, Alcatel of France and Japan's Sony while Micro-

development centres in

group, have both set up new operations in Hyderabad, India's fastest growing IT

centre.

According to annual figures prepared by the National Association of Software & Services Companies (Nasscom) in Delhi, India's software exports jumped from \$1.1bn to \$1.75bn in the vear to March 31, pushing the overall value of India's IT sector including domestic software and hardware sales

Dewang Mehta, Nasscom's executive director, expects export revenues to be worth \$2.7bn in the current year soft and Baan, the Nether- and to reach \$4bn by the end lands-based enterprise of the decade and he consid-

with 10 years to be "conservative"

Just six years ago, industry shipments totalled less than \$400m. That this should have been achieved in a developing country still struggling with a wide range of infrastructure problems and other obstacles is a remarkable achievement and testament to the determination of the architects of India's software industry.

They include the founders of a clear top tier of Indian software companies that is beginning to emerge as the industry begins to mature. Most of them are among the top 20 exporters, including companies such as Tata Consultancy Services, Wipro Infotech, NIIT, Sonata and Infosys Technologies, which

account for about 60 per cent of total exports.

India's success and its ability to outshine rival offshore software development centres including China, the Philippines and eastern Europe, at least for the time being, reflects a number of factors, including the grow-ing shortage of software engineers in the west. As a result hundreds of

companies from a wide range of industries including the IT, financial services and transport sectors, have turned to India's computer software and services companies for the IT skills they need to maintain and enhance their competitive-

been exacerbated by the year

and the imminent launch of the euro in Europe, both requiring massive conversion programmes in order to

make existing lT systems

exports expected to top \$10bn

and software compliant. India's geographic position has given the sub-continent a time zone advantage over both Europe and the US, enabling local companies to exploit the rapidly expanding international market for outsourced software services including remote mainte-

Indian software engineers can fix bugs or upgrade systems overnight while their users in Western companies sleep. However, in an industry in which the main asset is people, it is India's

### The names you trust, trust ics,

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### Government keen to push the high-tech message

Demand from households and small businesses has picked up sharply, helping to offset an IT spending slowdown by the public sector and big corporations

are networked and there are

whole country, "The state

the private sector and for-

eign banks," says Kishore

Kapoor, marketing director

of CITL, a leading Indian

banking software group.

Similarly, most segments of

India's antiquated public

sector have yet to embrace

The slow pace of techno-

logical advance has already

multinationals to re-evaluate

their direct investment strat-

egies and scale back their

expectations. Nevertheless,

technology despite the dire

need for reform.

When Bill Gates, Microsoft's a nation of over 1bn people, chairman, visited India last the PC penetration rate is shocked by the state of the nation's infrastructure. Indeed, for all its success in software design and developtively impoverished in terms of its own infrastructure and just a few hundred auto-

Outside the air-conditioned offices of most big banks have lagged behind of which would not look out of place in Silicon Valley -India is a still a baffling mixture of the old and the new.

Cable television satellite dishes and GSM mobile phones transport the products of the information age while people, oxen and autorickshaws carry those of the material world.

With just 1.5 telephones per 100 people. India has one of the lowest fixed telephony penetration rates in Asia. Only one out of every 700 domestic IT industry may be

down in government and big corporate IT investment.spending by houseless than two per 1,000 filled the gap. According to the Delhi-based Dataquest Outside the main metromagazine, domestic IT politan areas, India's banking system is still largely spending grew by 26 per cent to Rs108bn with the strongest growth in the software segment, which expanded its share of the total from just

> Declining PC prices - they fell by 17.5 per cent last year to an average of Rs40,000 have taken their toll on some domestic suppliers, but have spurred growing sales for HCL Infosystems, the market leader, and its main rivals, Compaq Computer and Wipro. "We have grown the PC business strongly over the past three years," says Ajai Chowdhry, chief executive of HCL, the Delhibased IT group.

HCL Insvs. HCL's hardware business, now has about 20 per cent of the overall PC market and over a third of the fast-growing home PC market into which the group has just launched a Rs29,000 machine challenging "grey" market manufac turers for the first time. Last year, about 850,000 PCs were sold in India, a figure that Mr Chowdray expects to rise to about 1m this year.

Sales of domestically produced CD-Rom titles and multimedia training programmes are also growing alongside music CDs and videos. Under pressure from the IT sector, Internet access has at last been liberalised and other telecoms services may well follow.

For India's fast emerging technology companies, the web provides an ideal shop window for their services and a level playing field on which to compete with rivals

Meanwhile, the govern-

IT skills shortage problem?

Grappling with Year 2000

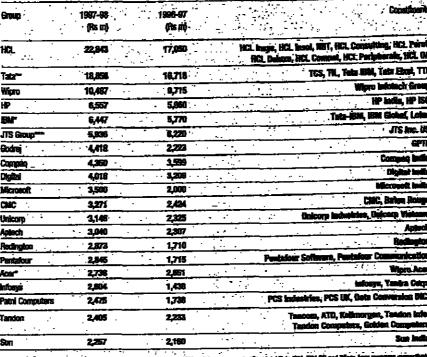
tions that the climate for the encourage both the use of IT in central and local government and - following the the taskforce committee on a series of steps to encour-

> We recognise the importance of IT to just about anything we want to progress in India, social policy, education and the economy," says Sudheendra Kulkarni, a member of the Prime Ministaskforce. "There has been a ress in the last six months and just about every state

Meanwhile, in India's main cities - Bombay, Calcutta, Madras and New Delhi GSM mobile telephones have become must-have items for members of India's large and growing middle class. Even though local businesses complain that new fixed lines still take far too long to materialise, the fixed telephone system is showing some signs of

As import duties have been cut and tough new copyright laws enacted. pirated software has been replaced with strong sales of egitimate packaged software from companies like Microsoft, Symantec and Adobe. In industry, sales of high-end business software from companies like Germany's SAP are growing strongly as industrial business houses face up to the need to invest in IT to ensure that they can compete in both the liberalised domestic market and

"Potentially, this is a buge market," said one industry analyst with Caspian earch in Bombay. Indeed look is reflected in the financial markets. Shares of India's leading technology companies, particularly those with strong technology



bases, product strategies or over the past two years. For example, shares in

Infosys, the Bangalore-ba technology group which plans shortly to list on Nasdaq, the computerised US stock market, have soared over the past year. This Murthy, Infosys' chairman, to turn their companies into a world class software

**MULTINATIONALS** by Paul Taylor

and productivity and not

Inevitably, the domestic had to live in the shadow of the dynamic export sector. It has nevertheless recorded strong growth in recent years. Last year, the domescent to Rs3.51bn led by strong operating system and office automation package sales and a 58 per cent surge houses in the global market in the sale of enterprise

resource planning packages Overall, the National Asso ciation of Software and Ser overseas companies launched 140 new software ers such as Bangalore-based Wipro. However, domestic packaged software vendors have also performed well. According to Nasscom. 140 new products from indige-

ages include Bancs 2000 reloped by Infosys. While the financial services market is dominated by local Indian software developers like CFTL and Infosys and new entrants like Synoptics now owned by Britain's Logica group - the elimination of import duties on imported software has helped fuel a surge in packaged software. with sales climbing to Rsl.4bn.

Other big domestic pack-

remarkat

Aside from Microsoft whose Indian sales and operations are expanding rapidly, other multinationals targeting the growing Indian SAP, Baan, Novell, Oracle and Computer Associate

Among the fastest growing are sales of database products. Cad/Cam packages and financial accounting packages although the market for ERP systems - including several local products -

than 500 companies operating in the domestic Indian software market. Leading local companies include the government owned CMC group, Sonata, Tata Infotech and Bombay-based Mastek, whose products include the Mamis ERP package and Ramco, whose ERP package has won critical acciaim.

Together, these companies have begun to prove that besides providing offshore services, domestic Indian build innovative, leadingedge business software packages capable of competing in the global software markets.



Kishore Kapoor of CITL: 'In automation, the state banks have lacged behind the private sector

### Big names drawn by high skills and low cost levels

To reap greater benefits from its rapidly growing expertise in IT, India now needs to move further up the scale into higher value business sectors

information technology secfits of India for high quality, low-cost offshore software development more than a

Since then, India has become a magnet for foreign inward investment. It attractscompanies from a Asia eager to tap the Indian market as a source of highly skilled and strongly motirated software engineers fraction of the cost of their vestern counterparts.

India has also been added to the global itineraries of senior IT industry executives keen to explore opportunities in the sub-continent for both sales and invest-

Recent visitors have included Bill Gates of Microsoft, Craig Barrett of Intel and Sanjay Kumar, president of Computer Associates, who was in India last month attending a large IT show in Bangalore, India's established IT "capital".

CA, which has targeted India for a five year \$100m. investment programme, already has a software facility in Calcutta and is now considering setting up an Indian development lab for its flagship Unicenter TNG software spite.

"Coming to India for low cost labour is a bad reason for coming here," Mr Kumar told the Economic Times, a local financial newspaper. "India can do well on a global scale in the IT industry. It has the intellectual capacity and the knowledge of English."

However, he also warned that India's position as a low cost offshore software producer was not sustainable over time. "Too much of what is happening in India is at the low [value] end."

Mr Kumar, one of the most prominent Indians in the US IT industry, said Indian companies needed to innovate more and move up the value chain if they were to survive, adding that India must quicken the pace of deregulation, particularly in the telecoms field, if it was to compete effectively in the world IT market.

CA is one of the latest converts to the Indian software development model, while Texas Instruments, the US chipmaker, was one of the first western companies to establish a "captive" IT development center in Ban-

TI, which moved into a stunning new facility in Bangalore three years ago, now has about 400 people there- also understood to be considworking on complex chip

The Bangalore facility is at the forefront of TI's attrition rates among softefforts to exploit its leader-

ket for DSPs (digital signal processors) which are used in many electronic devices ranging from mobile phones

Encouraged by government concessions and incentives, a steady stream of USbased IT multinationals have established captive software development units in Banga-Video-conferencing and

high-speed satellite telecommunications links supplied by VSNL (Videsh Sanchar Nigam Limited), India's Baan, the Netherlands-based who are still available at a international telecoms carrier, and the nation's dedicated Software Technology Parks have transformed these buildings into virtual offices that could just as easily be in the California, Cambridge or Osaka.

#### International projects

Many of these facilities are working on international projects and have worldwide responsibility for particular products, others are part of global development operations linking together. Asia, Europe and the US in a seamless cycle. For example, Oracle, Novell and Motorola have all set up large Bangalore-based research and development labs serving their global operations and both Motorola and Oracle are currently expanding their Indian facilities consid-

"We are continuing to grow" says Ranjan Chak, executive director of Oracle Software's Indian Development Centre (IDC) in Bangalore. As well as building a second facility in Bangalore, Oracle has also set up a facility in Hyderabad's fast developing High-Tec City, the brainchild of Chandrababu Naidu, Andra Pradesh's go-ahead chief minis ter. "Hyderabad will enable us to develop a new

resource," says Mr Chak But despite Bangalore's overstretched infrastructure and notorious power problems, US, European and even a few Asian multinationals are continuing to

Among the recent new entrants are Siemens of Germany, which has established large software development operations, and Lucent, the US telecommunications group which has built a new facility next door to TL

Other new arrivals include Germany's SAP, Ericsson of Sweden and Glaxo-Wellcome, the UK pharamaceuticals group. Sun Microsystems, which has a growing sales operation in India, is ering an investment.

Nevertheless, as Bangalore becomes more crowded and ware engineers reach even

one of the factors fuelling a investors are looking to India's other emerging techacoulsitions in India.

their Indian operations. "Five years ago, there was no choice but to come to Bangalore," says Kunal Kashvap of Arthur Andersen. "Now, that is not the case. Hyderabad, Madras and Pune are all growing rapidly while Bangalore's infrastructure problems, power, and roads all get

Microsoft, Oracle enterprise resource planning software vendor, are all developing facilities in Hyderabad. Cisco, the USbased networking equipment market leader, has set up a software development facility in Madras in partnership with HCL, the Indian IT group whose other offshore partners include Perot Systems, Deluxe Corporation

and James Martin. After watching the success of established Indian IT centres like Bangalore, Bombay and Delhi, most Indian states have realised that fostering inwards investment in the IT sector has many posi-

Competition for new investment is therefore intensifying at the same time as the labour market in cities like Bangalore becomes more problematic. Software engineers's wages are currently rising by about 25 per cent a year or more and attrition rates in Bangalore and some other areas are running at between 30 to 40 per cent a year as multinational companies and indigenous software developers vie for the experienced developers. "You cannot run a business on that basis," says Mr Kashyap.

The challenge of building an Indian software development centre from scratch is

new wave of mergers and

FI Group, the UK-based nology centres to establish computer services company. led the way last year when it acquired IIS Infotech, a fast growing Delhi-based software group built up by Saurabh Srivastava, for £22m. "It has been a near perfect

marriage of two companies, per cent this year and now employs 1,200 people. Since then Logica, another

and services group, has vative Bangalore-based start-up which has developed a component-based banking

package. Meanwhile Rave Technologies, a Bombay-based start-up founded by entrepreneur Anand Jhaveri and which now employs 60 people, has merged with its UK-based partner, Karnatica. Revenues for the group, which has specialised in leading edge software development including Java-based projects, doubled last year. "The trend towards Java and web-enabled applications is very strong," says Mr Jhav-

Other Indian-based software groups, including HCL, Datamatics and Mastek are expanding their overseas operations in a bid to build truly global IT groups. "We are looking at an

acquisition in the US to give us the critical mass there," says Rahul Kanodia, Datamatics' joint managing director. The Bombay-based group, which has a number of top Japanese customers, is also planning to set up offices in Japan and the UK. It is likely that others will follow reflecting the growing internationalisation of the Indian industry as it begins

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SOFTWARE EXPORTS by Paul Taylor

### Remarkable growth rate continues

Foreign earnings have been moving ahead to record levels, with the US leading the accelerating demand for Indian software

India has emerged as one of the leading software exporters among developing countries with annual exports expected to top \$10bn within the next three years.

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"Exports have been growing very healthily," says Pradeep Gupta, managing director in India of International Data Corporation, the market research firm.

"We think that we have just scraped the surface," adds Sudhakar Ram of Mastek, one of India's top 20 software exporters.

The remarkable success of the Indian software export sector since the mid-1980s is reflected in the annual fig-ures prepared by the Delhibased National Association of Software and Services Companies (Nasscom).

Last year alone (1997/98), software exports grew by more than 67 per cent in volume terms and 55 per cent in terms of value to Rs65.3bn (\$1.75bn).

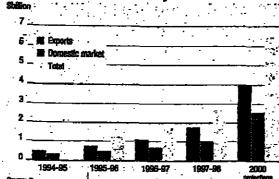
Despite delays earlier this year in the approval of additional HIB visas for Indian software engineers working "onsite", and the threat of sanctions following the Indo-Pakistan nuclear tests, Nasscom still expects export revenues to grow by at least 50 per cent to Rs100bn (\$2.7bn) in the current year.

Overall, software exports have been growing by more than 55 per cent annually over the last five years and the pace of growth shows no ware export industry," says middle class youth. Dewang Mehta, Nasscom's executive director.

special factors like the surge in the developed world of year 2000 conversion work remain competitive and triggered by the looming react quickly to commercial millennium computer date opportunities. In the US,

growing maturity of India's nies in the financial services; greater customer confidence, sectors; are increasingly in the industry's ability to dependent on Indian technideliver high quality products and services on time and

Projections for the software industry



despite rising wage costs, Indian software exports go India has been able to con- to the US and almost 180 out tinue to increase the soft- of the Fortune 500 compaware export business in the nies outsourced their softface of growing competition were requirements to India last year. tries like Russia, China and the Philippines.

has a very highly educated dia, chairman of Datamatics and one of the fathers of "The other great plus from the international point of view is that India is Englishspeaking in contrast to China and other countries."

Indeed, driven by the demands of offshore clients. for low-cost, high-quality products and services, India's software export industry has become one of the most dynamic sectors of and Deutsche Bank all rely the Indian economy, a valu- on Indian software developable foreign exchange earner ers and the changes needed signs of slackening. "Last and an important source of to prepare for the introducyear was the highest growth new professional jobs for tion of the euro are likely to rate ever for the Indian soft- India's expanding young expand the European mar-

Indian software engineers This growth partly reflects systems to help companies Europe and now Asia, a But it also reflects the growing number of compasoftware industry, and retail and manufacturing

cal know-how.

Europe is India's second hippest software export mar-"India is unique in that it ket and accounts for a growing share - 22 per cent last population," says L S Kano year. Five per cent of exports go to South East Asia, 4 per cent to Japan: 2 India's software revolution. per cent to West Asia and 6 per cent to the rest of the

> "This clearly shows that companies around the world can obtain competitive advantage through alliances with Indian software compa nies," says Nasscom's Mr Mehta. In Europe, companies like Siemens of Germany, British Telecommunications

Nasscom's own research maintain and update suggests that work related to the introduction of the euro could be worth more than \$2bn alone to the Indian software industry over the next three years - further augversion work which is currently under way.

diverse mixture of new startups, joint venture compa-The US is predictably nies, foreign implants and within budget. These factors India's biggest export mar-spin-offs from some of also help explain why, ket About 60 per cent of India's oldests and most

| ,neer,           | - Anthony                         | 100.00     | Carbam fad |            |  |
|------------------|-----------------------------------|------------|------------|------------|--|
| 1997-98° 1998-97 |                                   | 1997-98    | 1996-97    |            |  |
| . 1              | Tata Consultancy Services         | 9,401      | 6,068      | 564        |  |
| 2                | HCL Corporation ·                 | 7,209      | •          |            |  |
| 3 2              | Where                             | 3,869 .    | 2,525      | 540        |  |
| 4 4              | Postsfor Software & Experts       | 2717       | 1,594      | 704        |  |
| 5                | MIT                               | 2,583      | 1,512      | \$00       |  |
| 5 5              | ktiosys Technologies              | 2,472      | 1,252      | 973        |  |
| 5 7              | Satyana Competers Services        | - 1,781    | 852        | 1,990      |  |
| .7               | Tate infotech                     | 1,723.     | 1,065      | 816        |  |
| 8 8              | Patel Competer Systems            | 1,375      | . 848      | <b>620</b> |  |
| 9 11             | Tata (BM                          | 1,284      | . 663      | 814        |  |
| 10 18            | DSQ Software                      | 1,167      | 676        | 726        |  |
| 11 9             | international Computers hidis     | 1,085      | 127        | 313        |  |
| 12 12            | Makindra Aritish Yelecom          | 992        | 627        | 580        |  |
| 13 -             | L&T Information Technology        | \$80       | •          | -          |  |
| 14 13            | Mastrik .                         | <b>859</b> | 577        | 488        |  |
| <b>15</b> 15     | - Citicorp Information Industries |            | 532        | 410        |  |
| 16 14            | Siemens information Systems       | 720        | 553.       | 303        |  |
| 17 17            | CHIC                              | 982        | 342        | 935        |  |
| 18 16            | iP jadia Software Operations      | 568        | 439        | 290        |  |
| 19 19            | Complete Business Solutions       | \$45       | 184        | 1,950      |  |
| 20 18            | BPL Softmare                      | 527        | 321        | 641        |  |

groups.

According to Nasscom, there are almost 630 companies in India involved in software exports - another 180 small companies collectively account for revenues

Fourteen companies exported more than Rs1bn of software, while 73 companies had export revenues

of over Rs100m

of less than Rs100m). The Indian companies Together, these companies undertaking this work are a employ about 200,000 software engineers, making the second largest group of software professionals in the world after the US.

well-established industrial vary dramatically in both includes foreign joint vensize and structure. Last year, ture and "captive" compa-14 companies exported more nies like IBM Global Serthan Rs1bn of software and a total of 73 companies had Telecom, Citicorp Informaexport revenues of over Rs100m. Reflecting this growing stratification of the industry, the top 20 export-ers accounted for almost 60

per cent of total exports. These big exporters include companies such as Tata Consultancy Services which alone had software exports of almost Rs9.5bn last year - nearly 15 per cent of the industry total. As a result, Bombay-based TCS

emerged as India's biggest FT company, the first time a software group has held this position. Other top 10 software dards, low manpower costs exporters include Bangalore- mean exporters can still based Wipro Systems and Infosys Technologies, the Delhi-based HCL Group, Pen-

from Hydrabad - India's fastest growing IT centre. Most of these indigenous Indian software companies have emerged from existing Indian industrial groups, but

the top 20 exporters list also

vices, Mahindra British tion Technologies, Siemens Information Systems and Hewlett Packard India.

Typically local Indian software companies follow a similar development pattern as the move up the value chain. They begin by exporting cheap labour overseas or "body shopping".

This phase, which the Indian software industry entered in the 1980s, enables companies to build credibility with potential clients. and while margins in exporting cheap labour may be thin by international stanachieve healthy profits.

Secondly, they begin to bring work back to their tafour from Madras and home countries using cheap Satyam Computer Services labour to provide offshore services. This type of contract or project-based work eliminates costly travel and structure.

companies have established

Rest of the world

single client. These high-se-

in-house development teams. For these companies, satellite communications remove distance as an obstacle to doing business. Six years ago. VSNL India's international telecoms carrier, supplied just ten 64Kbps satellite data links. Now, Indian software companies have more than 590 leased lines capable of delivering 64Kbps

or greater. The shift from on-site to offshore work has been quite pronounced in the past decade. In 1990, the percentage of work done offshore was a mere 5 per cent. Today that figure has risen to about 41 per cent and continues to climb.

The next phase is to build packaged software products for export overseas, or provide high value-added services such as consultancy and systems integration. These are the highest margin businesses in the global software industry and the longer-term goal of most companies in India as else-

where. However, the packaged software business in particular requires more initial capital - which is in short supply in India - and is much more risky than contract work.

Successful products also require good market understanding and hefty marketing expenses which offset the cost advantages of develhelps build the local infra- oping software packages in a developing country.

Today, most Indian software companies undertake a Nasscom on pages 4 and 7.

"software factories" or units variety of work for their dedicated exclusively to a overseas clients - maintaining applications, converting curity units - such as those code or migrating software established by companies from one platform to such as Wipro, BFL and another. But increasingly Madras-based Square-D - they are also undertaking ensure confidentiality for more challenging work for long-term partners and oper-their overseas clients or par-



of India's top 20 software exporters, says: 'So far, the industry has just scraped the

ents, including full-scale projects from design to testing and delivery.

Many of the larger Indian companies are also expanding their international presence. They are setting up offices in the US, Britain, continental Europe and now in south-east Asia and east

□ Government initiatives: see report by Mark Nicholson in Delhi, page 4. ☐ Technology's impact on India: see report by Dewang







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### Rural India on the info highway

Millions of India's villagers who, as yet, do not have telephones in their homes, can nevertheless walk to the village phone booth and dictate Internet messages

mouter screen in a remote rural district of Uttar Pradesh, a state in northern

Chameli Devi was amazed essage from her husband. Ram Singh, in the small public telephone office in Jaunpur last month. He had recorded it from a similar booth in Mumbai, 1,240 km

The couple inaugurated the world's first commercial video-email that will eventually enable millions of poor-

cate cheaply.

Costing Rs15 for a threeminute message, the facility transmits video images and the voices of users to e-mail accounts just like text mes-

fields and knows nothing of computers or electronic mail, paid the booth owner Rs10 extra to open a standing e-mail account, including up to five people. The com- access in India. her husband's picture that is munications ministry has

Her face hidden behind a booth. Until now, Devi had colourful veil, an illiterate to wait weeks for surface woman stepped in front of a mail from her husband, whom she sees only for one month a year. The facility, likely to be launched in several public booths across India, will also provide video when she saw and heard a e-mail messages in local lan-

> This e-mail facility was tested by inviting 18 Mumbai taxi drivers who come from Jaunpur to record messages for their wives and children

The Government of India's information technology taskforce has suggested various means of propelling large numbers of Indians towards the global information revolution which has so far touched only a fraction of the country's nearly 1bn

Despite a boom in the use of computers, India has an installed base of only 2.3m personal computers and scribers, with each connec-



trict hubs across the country with Internet connectivity. and do not write letters, can now walk up to the phone booth and dictate internet

This is almost an Internet revolution. Thus not only the urban population but even rural Indians have started stepping onto the information superhighway. about 130,000 Internet sub- All of this is taking place under the backdrop of the tion, on average shared by opening up of Internet

The Internet said it will provide all dis- announced by Atal Behari

Vajpayee, the Indian Prime Minister, last month is expected to unleash hunvice Providers in India.

According to a survey conducted by India's National Association of Software and Service Companies (Nasscom), the country is projected to have more than 1.5m Internet subscribers by the turn of the century.

Undoubtedly, the software industry is ecstatic as more Internet proliferation would not only mean more business opportunities - such as Internet web designing, con-

Today, there are more than 1,000 companies offering web design and content development services in cialise in the latest technologies and are gearing up to net. But for that, there is a need to introduce cyberlaws

#### in the country. New IT Act

India's department of electronics has done extensive work in drafting an Information Technology Act, which will be introduced in the Indian Parliament this

provisions for digital signature, but also amend outdated laws. Political observers believe the proposed will have a smooth sailing in parliament as all political parties are in the favour of enacting cyberlaws.

The provisions of the Act are in conformity with the WIPO Copyright Act and the WIPO Performance and Phonograms Treaty. Legal provisions of this act are at a par with the Digital Millenum Act. introduced in the

In yet another exercise, the government and the

industry is also gearing up towards content development on Internet. Already, Nasscom is setting up a National Internet Centre of The objective of NICE is to

create standards for internet content for local languages lence in development of internet web sites and databases. It would also undertake training of teachers.

Undoubtedly, India today houses the second largest English-speaking scientific manpower pool in the world. But, for a nation of almost 1bn people, only 4 per cent are proficient in English. Therefore, there is a strong effort to push Internet in local languages

local languages may be more through cable televisionrather than a conventional personal computer. India has already seen a real prolifera-tion of cable TV connections. If the installed base of personal computers in the country, is only 2.3m, then India boasts of 37m cable TV con-

This is the second largest volume of cable TV connections in any country of the



world The cable TV industent, which has tremendous local flavour. For the internet to proliferate in India, the flavour of local content and innovative methods such as video e-mail would

have to be devised. Cities such as Mumbai, Bhubaneswar, Pune, Hydera ing fibre optic for cable TV so that consumers can gain access to the Internet by installing extra set-top on their TVs.

Experts in software indus-

country-through unlimited of e-commerce, but also to products and packages being developed in the country. In addition, the Internet could cept of virtual universities.

For a vast country like India, the arrival of private ISPs, could not have been at ☐ The writer is executive

director of India's National Association of Software and Services Companies. Nas-

#### Software industry

Exports 1997-98 (Rebillion Wipro System HCL Consul ácur Saftware & Exports

Pedigree: ped'i-gré, n. a line of ancestors: a scheme or record of ancestry: lineage: genealogy: distinguished and ancient lineage: derivation,

descent: succession, series, set. -adj. of known descent, pure-bred, and of good stock.

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GOVERNMENT INITIATIVES by Mark Nicholson

### Task force cuts red tape to spur IT sector growth

The rapid growth of India's software market has been helped by the absence of bureaucratic interference and excessive controls

atiya Janata party-led government's drive to promote software and information technology - among its more successful initiatives so far it is probably partly because there is no ministry of software and information tech-

ware industry's pioneers have long said that the industry was helped to flourish in the late 1980s and since by the fact that it fell under no existing industrial or exporting licences or controls. None of India's dated fusty and centrist controls revolution which spawned the sector, no ministry was in place to constrain it with bureaucracy.

"If you look at two of the things India is best at, it is because there is no ministry," jokes Dewang Mehta. executive director of the National Association of Software and Service Companies. "One is our beautiful women, another is software. There is neither a department of software nor of

Thus, when the BJP-led government made IT development a priority, it was able to start more or less with a clear field. And the sector has from the outset been identified by the BJP as a priority. It was the sole party to devote attention to the sector in its election manifesto, partly a reflection of the fact that the success of India's software industry appealed directly to the party's strong economic nationalist agenda. The party speaks of making India an 'infotech superpower".

Soon after taking power, therefore, and to create a change agent in the absence of any existing department, the BJP created a national task force on information

This is an 18-strong body drawing together bureaucrats from appropriate ministries, politicians, including Chandrababu Naidu, the



Taskforce for IT and Software last May

"high-tech" chief minister of Andhra Pradesh state, and industry leaders; it is headed by Jaswant Singh, deputy chairman of the planning commission. Uniquely, the task force imposed on itself a series of deadlines for its reports and initiatives, and set itself an expiry date of

December this year. Constituted on May 22, it issued its first recommendations on July 5. These com-prised 108 detailed recommendations embracing everything from moves to clear existing bottlenecks hindering the software and IT sector, promotional policies and guidelines for an overall "national informantics policy\*, including full and liberal recommendations for an Internet service provider policy. The whole was officially

zetted by July 25, and the task force has since produced a report on the hardware sector, while also being handed responsibility for reviewing India's overall telecoms liberalisation policy, a giant task and one which, say its members, derives from the "credibility" the unit has won. Although not all that the

task force has recommended has yet become full-blown policy, nevertheless it has, by Indian standards, been something of a whirlwind. "I don't think in recent history have so many resolutions been formed and passed so fast," says Mr Mehta, also a task force member and its

Behind Its success, say insiders, lies its relative nimbleness and energy. Though notionally 18-strong, the task force has been driven along chiefly by three individuals: Mr Mehta, whose industry lobby, Nasscom, is among India's best organised. N. Seshagiri, director of India's national informantics centre and a hugely experienced Kulkarni, a former journalist and member of the prime minister's office whose belief in India's IT potential borders on the messianic.

Throughout, the task force has had the full backing of Atal Behari Vajpayee, the prime minister, with whose authority, say insiders. Mr Kulkarni has wheedled, cajoled and organised various other government departments in behind the proposed IT policies.

the system, he certainly helped that Nasscom has long had a well-articulated series of policy demands in place and upon which the unit could draw.

Thus, among the task force's gazetted recommendations, have been amendments to the depreciation rate on computers, from 25 per cent a year to 60 per cent. policies to allow "sweat equity" for software employees, moves to underpin greater bank lending to the sector, commitments to accelerate the duty schedule them all zero rated by 2002, a fully fledged and liberal Internet policy and various customs and export exemp-

The unit has successfully pressed for Indian software companies for the first time to list on overseas exchanges, and to use foreign exchange to purchase

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1.5

companies abroad. Not all these policies have yet been implemented. And the test of the BJP's IT drive will lie in ensuring that those policies whose implementation lies under the often dead hand of other government agencies are, indeed, effectively put in

The biggest achievement. however, according to Mr Kulkarni, is to have "created a certain atmosphere" of momentum behind IT in the country - and perhaps also within the bureaucracy.

"It is in conveying to the nation that there is a big opportunity for India, that here's an area where India has a natural advantage and that we must not lose time. We are in the process of changing the mindset and facilitates and does not hinder the process. And we acknowledge that much that has happened in India in this sector is not because of the government, but desnite the

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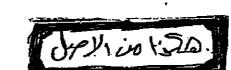
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Message from

Prime Minister Mr Atal Bihari Vajpayee

### IT is India's Tomorrow

Information Technology is one of the greatest boons of science to humanity. It is revolutionising life on this planet like no other technology has in human history. It has been impacting on the economy, communication, culture, educational system and social interaction in all the countries, bringing them closer in a world transformed into a Global Village and laying the foundation for a new civilisation. India, us the cradle of civilisation, is poised to become a major IT power in the coming years and contribute to the realisation of its many promises for our own henefit and for the global good.

My Government's commitment to IT is evident in the path-breaking work done by the National Task Force on Information Technology in just six months. We are removing the bonlenecks in the path of software development, aiming to export \$50 billion by 2008. We are planning to make India a major centre for hardware manufucturing and exports. Recognising the indispensable need to expand and modernise our telecom infrustructure to world standards, we are undertaking fundamental reforms in policy. The new policy will create a competitive and wellregulated environment to harness the full benefits of convergence between telecom, IT, media, and consumer electronics. The recently announced liberal ISP policy. which removes the existing public-sector monopoly, is a pointer to the direction

India's new focus on IT has naturally opened up tremendous opportunities for foreign IT companies and professionals for investments, joint ventures, R&D, and import and export of goods and services. Not only the Central Government, but also all the State Governments are creating a supportive framework to facilitate domestic and foreign investments. I believe that II' is India's Tomorrow. I invite you to participate in ushering in, and benefiting from, this bright tomorrow.

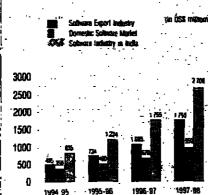
Prime Minister

### **Expanding Horizons in Connectivity**

The Software capabilities are being ably supported by the infrastructure required to support its marketing and access. In this connection a National Information intrastructure is being developed so as to put in place a complete system on information sharing nationwide. It is being further dove-tailed with the Global Information Intrastructure and Local Information Intrastructure (GII-NII-LII).

These strategies have been given impelus by the liberalisation of the Internet Connectivity Policy announced on November 6, 1998 as per which Private Service Providers are invited to enter the Internet Service Market which was hitherto handled by one public sector company. Now any company in India can, with upto 49% lovelign equity, apply for a license to provide Internet Services. The Boance shall be valid for 15 years and there shall be no licence fee for the first five years and would be a token Re one for the subsequent period. Private ISPs can obtain sion links from DoT, licenced Basic Service operators and a host of other agencies. It is expected that this policy would help further consolidate and develop the Software competence available in the country.

SOFTWARE INDUSTRY IN INDIA



SOFTWARE INDUSTRY IN INDIA Projections for 1998-2008

### efficient software solutions with cost and quality advantages, using state-of-act technologies. They also have the capacity to handle large projects and, above all, the ability to execute briefly delivenes.

Undoubledly, overseas compenies are attracted to India for many reasons. The presence of a large, highly statled pool of professionals is one of them. Software is fast moving towards numero uno status in the

india today has the second largest pool of English-speaking scientific professionels in the world, ranking right behind the U.S. It also has a growing bank of 4 million technical workers. There are over 1715 educational institutions and polytechnics that train more than 55,000

The Government of India has recognised the potential of Information Technology for rapid and all-round national development and this has also been highlighted in the National Agenta for Governance of the

Accordingly, a National Task Force on Information Technology and Software Development was constituted in May 1988. This Task Force is chaired by Mr. Jaswant Singh, Deputy Chairman, Planning Commission, and co-chaired by Mr. N. Chandrababu Naidu, Chael Minister of Andhra Pratesh, and Dr. M. G.K. Menon, former Minister of State for Science and Government, inclustry and academia.

steps that the Government needed to take to remove bott

The second report of the IT Task Force on Hardware was submitted n November 3, 1998 and its recommendations are being studied by

### **Accelerating IT Development In India** National IT Task Force draws up path-breaking Action Plan

Information Technology (11) has been the greatest change agent of this century and promises to play this role even more dramatically in the coming decades. IT is changing every aspect of lumnan life -concountations, bate, manufacturing, services, culture, entertainment, education, restaird, maloral detence and global security. IT is breaking eld barriers and building new interconnections in the emerging Global Village. IT has also become a chief determinant of the progress of realisms.

For India, the rise of information Technology is an opportunity to overcome historical disabilities and once again become the master of one's own national destiny. It is a tool that with enable India to achieve the goal to becoming a strong and prosperous nation. In doing so, IT promises to compress the time it would otherwise take to advance rapidly in the

india has already developed a reputation as a haven for software development. In the issaulyeer 1997-98, the Indian software generated revenues worth US\$2.7 billion, with annual software exports of US\$1.75 billion. More than 158 of Fortune 500 companies either have their own software set-up in India or tie-upsowth Indian Software Companies. A World Bank funded study has also confirmed that 82% of the vendors trienviewed in USA close holde as than #1 choice for computer software

computer software professionals on an annual basis. This is in addition to the graduales coming out of the Indian Institutes of Technology (Tis).

Such large, lactinically skilled resource has juritie helped the rapid growth of the software undustry in India. With a compounded annual eth rate of more than 55% between 1992 and 1997, the Indian software sector has expended airmost twice as tast as the world-leading U.S. software industry did during the same period, though from a smaller



The Task Force's mandate included recommending immediate path of rapid development of IT in India and give a big boost to Indian IT and software inclusity. This was promptly responded to in about a morth's time in the form of an information Technology Action Plan, containing 108 recommendations covering both boilieneck areas and broad promotional nessures that are couried for boosting IT in India. A basic objective wa to create the policy ambience for a target of a US\$50 billion annual export of IT Software and IT services by 2008, over a commensurately large domestic IT market spread all over the country. The IT lask Force's recommendations for the solbware industry were not only quickly accepted by the Government, but many of them have already been implemented. William 10 days of Task Force's first report, the Finance Minister announced

Some of the highlights of the IT Task Ferre recommendations accepted by the Government of India may be summarised as follows: • Tax incentives : 100 percent income lax exemption to exports of latch incommes; 100 percent accurate has exemption to expose of IT Enabled Services that medical transcription, call center, data processing, internet content development; this is in addition to the tax exemption already granted to software exports; zero duty on all lunds of IT software; no withholding tax on rematance of money of mystry on

communities software, no service tax on the computer software analysis; Customs Bonding: The Policy to exempt software developers and exporters from physical and customs bonding at various export promotion schemes such as Software Technology Paris (STP), Export Onerfied Units (EOU), Export Processing Zones (EPZ), eld. is armed at treeing the software industry from local restrictions.

Pearing are solver a focus yrigin in call restrictions.

Finance and Venture Capital: The Government of india has directed nationalised banks to provide additional Working Capital worth US\$ 300 million to the solvere industry; the concept of sweat equity accepted and international norms of venture capital introduced Government to provide venture capital enteronment and stake comed funds of US\$ 500 million to be made available for venture capital to the conference to the other time operations of the additional section. software industry, the government has streamlined and laberalised the policy on mergers and acquisitions; and easy access to funds for

 Intrastructure: Setting up of 50 ht-tech habitats all over the country, setting up National High Speed Telecom Backbone an unformled number of private Internet Service Providers (ISPs): encouraging private parties to set up software technology parks and providing them with tax

A special finiciarea in the TT Action Plan' is the disation of a liberalise increared procedural environment in the telecom sector which provides the key advantage for the IT moustry. A large number of notatives have been recommended in this area. They include empiric of the Victoria Sanchar Nigam Limsted (SNL) monopoly on extensional galevay for internet access, access to internet through Cable TV. Internet access nodes to be operaed by the Department of Electroarmunications and authorised thiermet Service Providers (SPS) in all distinct headquarters by January 26, 2000, and, until then, internet access from the nearest organismy 20, 2000, and, unit in the matter access that he heart is node on local call rates, upgradation of STD/SD booths into hit-service information kicesis: offering e-mail, voice mail and internet, and permission for the Rativarys, Defence, State Lectricity Boards. National Power Grid Corporation as well as organisations like Oa and Natural 6as Commission (ONGC), Gas Authority of India Limited (GALL) and Steel Authority of India Limited (SAIL) to use their fittre optic backbone to provide service to the public by interfacing with easing or new public

The 'IT Action Plan' has recognised the importance of the 'last mile' problem in reaching internet and IT services to the end-user. Towards this end, it has recommended free permission for fast mile. Unlages by extres fibre optic or radio communication for IT application enter Another measure in this direction is the opening of radio frequency band in the range of 2.4 - 2.485 GHz for public wireless services

The new policy allows interconnectivity between public and private networks, immediate clearance of bandwidth requests from public or private sector Software Technology Parts (STP); to boost 'Call Centre' business in India to handle employment-intensive back-office jobs of

 Manpower: Setting up of Indian Institutes of Information Technology (IITs), industry to set up Institute of Computer Software Professionals of India (ICSPI): internel and computers in every school and college by 2003; output of 1 million computer software professionals from universities, institutions, IETs in neal five years

 Domestic Market: Mandatory government spending for purchase of IT; concept of Electronic Governance; public procurement policies: 60% depreciation on computers and 100% on software; mandatory IT training for new government employees, massive encouragement and implementation of electronic commerce/EDL These steps also may lead to more than US\$35 billion of domestic software market by year 2008

 Cyber Laws: New Cyber laws in the form of Information Technology Act is complete conformity with WIPO and other International Laws, Dugital Signature Laws as well as prevention of computer crames to be introduced Establishment of the Task Force at the national level has also had a tavourable impact on state governments. Virtually every state is now competing to provide a congenial environment with state-of-line-art modern hi-tech intrastructure and plug in play facilities, so that indian and overseas companies can immediately set up their software

According to NASSCOM (India's National Association of Software and Service Companies). the first six months of fiscal year 1998-99 has already generated a record growth of 65.5 percent in software exports. In the current year, software exports are expected to touch US\$2.6 billion. With Government of India giving additional tax benefit for (1 Enabling Services, more and more multimationals in USA, Europe and Japan are linding the Indian environment externely suitable for IT Enabling Services. These include Airlines, Banks, Health Agencies and many manufacturing and service companies who want to trassurice their requirement of back-office operations, revenue accounting, call centres,

availabelity of skilled management is adopted to the utilization.

At the same time industry has taken advance on the quality from. Already SELLevel 3 and 4 have become the order of the day. More and more 131 companies have accounted 9000 quality centrication

The blevine for sections e industry is internet. Rised on the IT last Force recommendations the government has opened up internel for emale service providers. This has already created a wave of enthusiasm in the global software industry. Almost a one button population is definitely a very absolute market for any internet or software company in the world. and need like years would with each a fright problemation of computers and internet in India. Providing extra pandwich at concessional rates for high speed data communication including 64 thps: 2M and above, the industry expects more "sened" - growth in offshare collecte development

The ubmade arm is to reschange such as software exports reverue of USS 50 billion by 2006 and almost USS 35 billion of domestic master in the same year, wadang to additional yaks for 2 million people. An environment which will make indicate submittees of These were the very words echoed by Bill Gates when he visited birds

Aconscious effort is being made for spreading the IT curiuse to all walks of examents, and record title of the country. Towards the send, the Government has given 100 percent depreciation on all 11 products, in two years, Software and 11 services without you'll be treated as priority sector by banks for need the years. Working capital requirements for the inclusing will be righted from the current level of Rs. 4 billion to Rs. 12 billion by the year 2000 and incentives are given for proliferation of software resopment in smaller cries and frame

The new policy gress a slow of measures to makening the use of iT m Government Some of these measures are reach Ministry Department to earnigh 1-3 such the budget for 11 each Ministry Department to prepare a face year IT plant a land of Rs. 7000 million to tackle the Y2N problem in the computers in Government organizations. IT interacy to be made an essential requirement for all future government and public sector

Large maternal projects are being included with the objective of professions ersonal Computers (PCC) and below: Indicate through the length and breath of the country. An Operation Homeledge, campaign his been launched for one estall and II objects on and II hosted education in the country. To make the PC penetration with entirization sector flow cost and every school, teacher and student describes of busing computers to do so by the year 2003. As a first step on this direction, all the Engineering Colleges, Medical Colleges and University Horares will be fully networked



Other measures for the soread of PC and internet intranets/Editarets are the Count Information System Linking the Supreme Count of India with all the 18 High Counts and 440 District Counts, compidensation and networking of Hospitals, Informatics support to tourists, among others. The IT Action Plan has brought about a new paradigm in seiting up IT Solvare manufacturing units for making the invable in the Indian content. A policy framework is given for making the Indian IT industry strong nough to meet the demands of a zero duty regime under the WTO-ITA by the year 2003.

A soft-Bonded IT Unit (S-BiT) scheme will seamlessly misgrate the local and export production for mainnesing the economy of scale and substitute a-posteriori controls for the exuing a-priori controls so as to meanures the velocity of business. For this export obligation is substituted by self-regulated export incentives and physical controls replaced by fiscal and edural controls. A bold concept which may sooner or later spread to other manufacturing industries, is that all clearances, including Customs, will be on the basis of a Legaby Enforceable Undertaking of self-declaration without missing upon any alipnon permits or inspections It will only be subject to a strict post-audit.

IT product manufacturing zones will be given priority status and IT will charged for any import of taw materials, components or capital goods in S-BIT Lind, concessional rates of disfles applicable to imports will be charged only when the manufactured IT goods are sold into domestic tanillarea. The concessional rates include an additional eroon incentive

for units exporting the manufactured goods Even as the FF Action Plan reports have been out on the World Wide Web of the Internet, a number of companies around the world have started making plans for setting up large manufacturing plants for IT goods in India because of such a congenial policy and frusiness environment that

### IT initiatives at the state level: Creating an enabling environment

The operating up of the Indian economy and effects of globalisation and the operated interests information Technology has created a new enthusiasm in the country While the Prime Minister of India salup the National IT Testions in May 1998, the Citied Annastars of Various Salte Governments have soon bellowed by setting up state level (T Task, Fouce(s), committees and even setting up Departments of Information Technology (DoTT) in their respective states in the last siz months, as many as 14 of 26 State Governments of India have already set up (T departments, Predominantly), the objectives of these are to promote and lowite governments in the sector of software. use of IT in Government as well as implementation of IT applications for the

benefits of their respective citizens Over the years, it is well known that Bangalone in Southern India has writinged noal software pentite occupanty called as the Silicon Vi India. But now, many more cities in India like Hyderabad. Cheonai, Alumbai. India But now, many more cities in finds the Hyderdooth, Checuta, Australa, Calcuta, Pune, New Delh, Kampur, Japur, Thurwens-nthapurari, Holda, Gurgann, Chandigarh, Indone, Goa, Bhuharneshwar, Gandhacqur etc., bave solned the movement, Very soon India would have at least 50 such hi-tach. If habitats, which will provide world class state of the-art infestivicture, To coner availability, many State Generorasis have started

academic session in September 1998. Most of the State Governments have also taken up ambitious projects of wrong up ther stakes frough LAN WAN toternel and high-speed satelike connectivity With the millience of National II Taskboza recommendations: ration of the State Government level at the state-owned State no if an Government and nation-wide resolution to provide computers and Internet connectivity to every school and college of India in the read this

Chrel Marisler N Chandrababu Nadu. Is empleme transform Andrea Pratiesh who a browledge society
HTEC city with skile: of the art integrated distastructure and edvanced disaconominación facilites being sel up ou lite outs capital, Hyderabad Fast phase offering 500,000 sq.f apital. Hyderabad Fast phase cliency 500 000 sq. t. of Joor space apital are areastment of its 1 belien completed ma record tarte of

The ligst Indian kishbate of Information Technology (IET) has already started academic session in September 1998, with corporate schools server grander. Microsoft, Oracle, Salyam etc. ser up by IBM. Microsoft, Oracle, Salyam etc. Set up up to the hology Part (STP) with state-of-the-art datacom facilities stocked in the heart of Hyderabad. STP also coming up at

Winth Area Network (WAN) connecting state secretarial and all distinct vision in the interview is the first one confidence of the confide

### ASSAN.

A Softmare Technology Park to greater Guneral proposed.
Extraced use of IT represented including setting up Vision Conserving Including setting up Vision Conserving LAN implages at state hearing arters, distinct story greater public americans and increase in computer education

The capital of India being selected amongst the first live of Habitats of the country. The Covernment of Delhi proposes to have bill leich only with state-of-the-ori intrashustum to be built over Delhi interpational

Presence of engineering colleges. ET and many reputed centres of Department of Information Technology set up with massive times to computeres the government.
If education in schools and colleges being given extra thoust with

State-of-the-art Intrastructure at Sedware Technology Part at Venta.

IT Super corridor with fibre-optic being built through Panap-Vasco-Varna-Nargano.
Trained English speaking manpower from engineering colleges and universibes indian institute of information Technology (IIT) and Vintual universities income recome— universities being set-up.

Plan to set-up state wide information comdor concerting State capital to districts and sub-divisions. State-wide adomnation basics and database overlied services to be set up by Department of IT in various stages by the year 2002.

Software Technology Park at Gaodhinagar and Proposal as set up additional parks at Alynedabad and Baroda. Proposal as set-up Dedizated Air Cargo ninal for hardware and software

Presence of Solaware Technology Park (STP) and Electronics Hardware logy Park (EHTP) at Gorgaon, located Debi's International arcort

First State in logia, to provide usernet access to all Haryana State Electronics Development Comparation equirements acreasing thrust on Government computerszation and setting

MÜ & KASHMIR Sollware Technology Park being planned at Srinager. Massive competensation drive in State government. (T Examing Services being declared as a Privit area. State government preparing a blueprist for promoting more

Bangakire - the state capital of Karrataka is already locount all over the world as the Silicon Valley of India Plest state to paneurice a comprehensive IT policy: Department of Interruption Technology (DoTT)

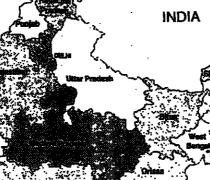
aiready set-up. Presence of engine Presence of engineering colleges. Indian inside e of Science and now setting up of government + process disease of Science and now securing upon government a Lockstry led locked no the Orisidas of Englance. Electronics city located on the Orisidas of Bangalore. Software Technology Park in Bengalore and Mysons and now also saving Manipat, Importation Technology Park at Whitefalds. Bangalore. Concepts of Electronic blosics, Electronic governance and state-wide

Problement of state-of-the-art beforestructure with a communication hacthone, switches, rocks, access retworks and data warehouses fectivoperic campus at Thirusary Maguram with International Samuan ides for a one-stop facility for IT companies to set up

Compositions and concessions for IT ventures.

State-of-the art infrastructure at Indoor and Shopal including state owned Software Technology Park OPTE, the nodel one-stop agency for providing all requisite bacilities in 17 companies. Indian lostificing of Information Technology and Management Being set

INDIA



of Local Area Network and Wide Area Net echnology Park at Jacpur

up al Guatior, existence of many engrassing colleges भा major colors and lowns. Arment providing extra forest on computerisation in state administration.

MAHARASHTRA - Mambai (Bombay) is known as the business and financial capital of India and provides state-el-the-art intrastructure for IT industry at SEEPZ. onal Indolecti Parkat Yashi, Navi Mumbai, Millennum Parkel MEDC at Mumbal.

Soltware Technology Park at Pune and coming up at Maggou

III at Manthal, Many engineering colleges in Pune and Meaghir and now Indian Institute of Information Technology (IIT) being set-up. Department of Information Technology at the state government looking red Villages project launched at Warana Nagar for the benefit of

Computer Software development and Electronics are identified as thrust

Coffeges and University.
Tourist paradise conversing to IT paradise.

High priority to Government computantation and IT training in Schools,

State-of-the-art Solbuse Technology Park (STP) launched with all

Comprehensive IT Policy Availability to trained manpower, power, housing, modern built-up space. Bhullarieshwar amongst the first live IT Habitals identified for the country Bhateaneshwar very soon would provide internel access through PONDICHERRY Almost 100% computers abon in Sovernment departments with Internet

Anusachil Pindani

Anusachil Pindani

Anusachil Pindani

Anusachil Pindani

Pupusa to sel up Sollware Technology Post

Well planned inhastructure with access to natural highways and Chemia international and apport ust 2 hours

PUNJAP

PUNJAP

 Special incentive package for IT infestivities
 Section incentive package for IT infestivities
 Section incentives for IT in
 Gurmaths corp. Computer extion of povernment services and establishment

Semiconductor Manufacturing Compiler at Mohaki near Chandigath Software Rechnology Padi (SOFTOP) at Mohaki near Chandigath. Promotion of an Information Technology Park and Electronics Hardware

Others incentive of 50 percent towards the land coccuprovided fulfillment.

Advanced software training institutes Proposal to set up Global Institute of Electronic Governance and Business Creation of the Electronic Government Earth stationary satellite connectivity to be established

SIKKIM Content déselopment and IT Enabling Services as times area. DOAM SIMAT

will be ushered in by the new policy framework

High Powered IT Task Force set up under the Chief Minuster TIDEL State-of-the-art intractructural laceloses being built in the heart of Chennol-with more than 100 000 sq micrarea. Information Technology Paulo, also planned at Truthy and Madura.

Apail from ensing engineering colleges and III - a separate government - industry run Indian Institute of Information Technology (IIII) -14MTEC being selup internet community centre being set up in all major cross, towns and

Massive computerisation drive in Government

Subware Technology Park (STP) at Nordal which is an cluse provinty to Delha and also STP at Kurpus. Plans to set up more STPs at Agra. Varamasu, Alfahahad Deliyadun, Lucknow State Covernment is vision to make Ultar Practical all Smart state" by

Presence of many centres of Excellence of IT Education including RT

Purery malitoment of land preservering capital etc., by state agences tor IT industry Special IT Advisory Board: The IT Actual Plan envisages spending of USS 6 between an next lical years, with 40% to be spent by Central and State government and resi by private sector to link up State Headquariers, with districts, sub-divisions and wileges

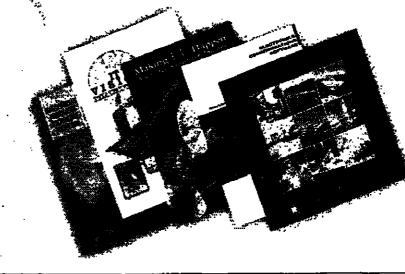
### WEST BENGAL

LITTAR PRADESH

Calcutta to house 400 acres of IT N#O HABITAT - a state-of-the-art Presence of major interactional and domestic planes, amongst others at Sait Lake Electronics, Complete WEBEL acts at a single anidom

state agency "Infanity - The intelligent City" which would include 300 000 sq it of

wated state-of-the-ail if accommodation. Establishment of a state surface cateful band Presence of IT and yet another dedicated inclinate for IT coursation and



### Euphoria gives way to hard-headed assessment

us they move into increasingly complex and demanding areas, many businesses vill have to develop more sophisticated nanagement skills

usiness sectors in the world as just hit a pocket of turulence. After rising seven mes in value from the end f 1996 to mid-1998, India's ave fallen back by about 20

This was despite excellent 1st half results. The big oftware houses reported rofits up by about 85 per ent on revenues 50 per cent igher. Some doubled profits ear-on-year.

There are a number of reaous for this. The spectacuir rise in share prices earer discounted much of the

Second quarter figures, set gainst a strong quarter last ear, were not quite as noressive as some had oped. Foreign investors 30k the opportunity to book rofits, often to offset losses

I me of the best performing in other sectors and other

Meanwhile, the late sum-mer fall in US high technology stocks listed on the Nasdaq exchange, a global benchmark for software shares, left Indian companies looking expensive.

Some investors sold software worldwide on fears of looming recession in North America, the biggest market for software exports. The correction did little more than blow away the froth around the sector. But it has had a sobering effect.

over, says Kislay Kanth, an analyst at DSP Merrill Lynch. "Everyone agrees that India's software companies still enjoy real competitive advantages," he says.

The debate is about tion is that software stocks whether, after rising seven times in value, the sector is

now fully priced. Leading Indian software companies trade at about 20 times next year's earnings, a hefty premium to the Indian market average of about 11 times future earnings.

"The price-earnings multinle for some companies is pretty high," says Alroy Lobo, an analyst at Kotak Securities. "That premium assumes strong outperformance. Other conventional multiples, like price to book value, also look stretched."

However, some analysts favour an alternative vardstick, price-earnings against growth, to take full account of software's faster growth rates. On this basis, software stocks look good value.

Investors are paying 20 The initial euphoria is times forward earnings for medium term growth rates of between 40 and 60 per cent, a P/E to growth ratio of 0.5 to 0.3, less than half the market average

The result of this calculawhich appear expensive strides in mainstream softtoday may look cheap in a

point, the sector may resume its upward march.

On both sides of the debate, analysis distinguish between an emerging super league of big exporters and those companies which aspire to join them.

The top companies including Tata Consulting Services, Wipro, ECL Consulting, Pentafour, NIT, Infosys, Satyam and Tata Infotech - have established a presence in overseas markets, possess strong order books and are accumulating intellectual capital.

The biggest, TCS, is a global company in the making. However, it is privately held, a division of Tata Sons, India's giant Tata group. While periodic rumours

re is no evidence that this will come soon. TCS, Wipro, HCL and Infosys have made big

suggest the group may one

day opt for a public listing,

ware solutions, developing in the US as soon as market

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expertise in client industries conditions allow. such as banking or retail.
Infosys and TCS have also made a little headway in selling software products. Others have developed niche markets. NIIT, for instance, is a world leader in educa-

tion software and web-based learning. Pentafour earns half its revenues from digital animation, mostly for Holly-

Satyam has set up specialist Internet-based subsidiaries, and plans to act as an internet service provider nationwide. These are solid companies

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okition, MAARSMAN, which

is operational in India and

ERP features. Customised to user needs, MAARSMAN

ng, Work Flow and

with good prospects. The most ambitious, including Infosys and NIIT, plan to list

With greater ambitions come new risks. Many analysts feel a US listing could pale when told of plans for overseas acquisitions.

At the very least, greater complexity will put a premium on management skills, in many cases untested, they say. Both in regard to poten-tial and downside risk there is a strong case for saying these companies should be treated differently from the rest of the sector.

Setting aside unlisted companies and joint ventures such as IBM Global Solutions or Mahindra British Telecom, most of the remaining companies are fast grow-

tory -Sales -Bill of

Financial Accounting Payroll Shop Roor Control Planning

Sub-Contracting Product

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facet of the company's activities. Not surprising, MAARS has

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the value chain. Most depend on basic systems conversion work, in particular the YZK problem, for a larger chunk of their business than the big companies. This offers low mar-

At the lower end, software is more like a commodity business, says Mr Kanth. Companies have to market themselves on man-hour rates. Year 2000-compliance work will soon disappear, but fortunately there will be another big batch of conversion work as Europe adopts the new single currency. However, what happens

after the euro? A lot of companies now growing at impressive rates may burn out. The best nedium-sized companies expertise and business rela-tionships to graduate to of the kind that India's top

companies do today. winners within this investment universe will be huge. Valuations are relatively cheap and could jump if a company graduated to the

companies to outperform is much greater in the future, says Mr Lobo. earnings growth and

price earnings expansion. This is venture capitalstyle investing, high risk investors spot a promising company, it may not have a solid track record and its shares may be too illiquid to

Spectacular returns for the bigger com-panies could be a thing of the past. Few analysts believe the sector can double or triple in value again in a matter of months, as it did

But the big software companies are here to stay and will remain core holdings for may capitalise on their portfolio investors. For proof, it is necessary to look no further than the revised market indices published by the Bombay Stock Exchange and Morgan Stanley Capital The reward for spotting International Both for the first time include software.

Moreover, if the rupee begins to weaken again or signs of domestic recovery remain elusive, dollar-earning software could swiftly The potential for these return to fashion.

INTERNET ACCESS

By Amy Louise Kazmin in New Delhi

## Moving forward

Conditions for Internet access in India are now more liberal than expected, but companies still expect problems

India's cyber-community cent foreign equity and can waited for a year for the government to implement a cabinet decision to allow private Internet service providers, ending the monopoly of the state-owned phone company, VSNL, over access to the

The wait proved worthwhile. In early November, Indian officials released details of a new policy that will throw open Internet access to free-wheeling competition and lead to the quick proliferation of Internet service providers around

the country. The conditions that will apply to private ISPs are far nore liberal and investmentfriendly than envisioned ear-

"Looking at it from where we were, we have come a very long way," says Alok Sinha, business manager for Internet services for IBM Global Services India.

The policy approved, but never implemented, last year would have relegated private ISPs to being little more than "retail sellers" of the government's Internet services, barred from investing in infrastructure and forced to go through VSNL's international gateway to the web. No more. Officials have decided that private internet service providers can interconnect with each other, use any existing infrastructure to set up their domestic networks and even provide "last-mile links" direct from their servers to corporate cli-

ents or large volume users. They will also be allowed to set up their own international gateways for internet traffic in the first competitive challenge to VSNL's monopoly over international calling. All told, says Mr Sinha, it

is now theoretically possible Though it may take a

while, he is confident that he is busy trying to discover such networks will exist. "what bomb are they going abuzz with activity," he Says.

The policy has also thrown open the market to any num-ness? ber of competitors - as long as they are Indian compa- gateway. While the licence nies with less than 49 per Turn to facing page

put up a bank guarantee for a prescribed amount.

So far, around 50 companies have applied for the virtually free 15-year licences to set up efther on a national level, regionally, or in individual cities.

"This is a revolution - a real entry of India into the information age," says Dewang Mehta, executive director of the National Association of Software and Service Companies (Nas-

At present, local dial-up access to the Internet through VSNL is available in just 35 of India's thousands of cities and towns, which forced potential users elsewhere to make costly long-distance calls to reach

But with the new policy. says Mr Mehta, "ISPs will be spreading everywhere". As they do, India's net surfing population is projected to grow from around 500,000 to an estimated 2.5m within four years.

While computer professionals revel in the policy, cynical telecom company executives, who have had bitter experiences dealing with India's entrenched telecom bureaucracy, are less enthusiastic. While the policy appears

liberal, they say that ambiguities in the license agreements leave plenty of room for the Department of Telecommunications to wreak havoc with investors' plans.

"The devil is the detail." says a senior executive for global telecom company planning to invest "really, really cautiously" in India's Internet sector.

He says companies providing other telecoms services, such as cellular phones, have already learnt that the for an ISP "to set up his own department has a way of network without having to zapping firms with unexdepend for a single meter on pected costs and otherwise the Department of Telecom-

So as he lays out his plans, "Even now, the sector is to throw at us? What is not written in the licence agreement that is going to destroy the profitability of this busi-

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A CEO's vision of Tidel Park

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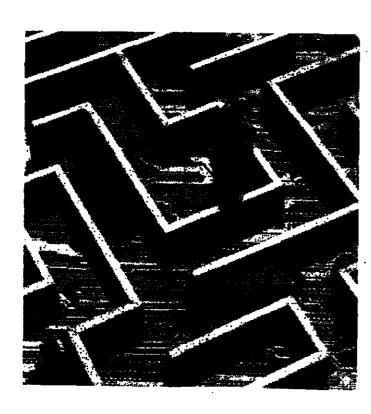
care of the much needed social infrastructure too. Be it the well connected transport network, the reputed colleges, the numerous multi-cuisina renowned hospitals and the dubs. Tidel Park will have easy access to all. No big surprise, it's already being

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PROMOTING EXPANSION by Dewang Mehta

By moving swiftly to remove obstacles to

Internet, the government aims to help the

This summer marked an taskforce. Never before had

implementation and fol- had a far-reaching effect on

the way of India's IT devel- processing, revenue account-

growth and ensure wide access to the

IT sector into a new growth phase

important stage in the devel-

opment of India's IT indus-

try. Never before had the

sector gained such extensive

In the six months to

November, not only were the

seeds for the next stage of IT

growth sown, but the quick

low-up also showed that the

new government means

National Taskforce on Infor-

mation Technology and Soft-

ware Development. This IT

Taskforce was constituted

last May by Atal Behari

Vajpayee, the Prime Minis-

ter, who gave it five major

The first, to be completed

in 30 days, required the iden-tification of bottlenecks in

opment and the recommendation of measures to remove them. The second

was the formulation of a

draft of the national PT policy with the aim of enabling

India to emerge as a leading

force in IT over the next

The third was to create an

IT vision statement and

awareness programme, the

fourth being to set up a vir-

tual vision group of eminent

international and global leaders. The final assign-

ment was to recommend a

mechanism for monitoring-

and implementing the IT

taskforce's recommenda-

The taskforce is headed by

Jaswant Singh, the deputy

chairman of the planning

commission and a close asso-

Other members include

politicians, senior bureau- jobs.

ciate of the Prime Minister.

crats and industry represen

tatives. The term of the task-

force is currently intended to

expire at the end of this

It submitted its first report

- the IT action plan for the

Prime Minister - in early

July. This concentrated on

the removal of bottlenecks

in the IT industry and pro-

Such ideas as providing

Internet access through pub-

lic telephone booths and

cable television caught

people's imagination. The

108 recommendations of the

taskforce were accepted fully

by the government in July

finance minister, added to

the positive spirit by

announcing a wide ranging

package of incentives for the

He quickly implemented

many of the finance-related

recommendations of the

says that Internet service

providers will be allowed to

set up their own gateways

software-driven IT sector.

INTERNET ACCESS

Yashwant Sinha, the

and even notified as law.

motional recommendations.

The latest IT drive is the

brainchild of the new IT software.

press coverage.

future development

any government in India

given so much assistance at

once to the software sector.

One expert said: "It was like

Santa Claus in the form of

the finance minister giving

goodies to the software sec-

the software industry, as

well as on the public. The

government announced zero

import duties on all kinds of

The government also

extended a 100 per cent

income tax exemption on

profits derived from the

export of IT enabling ser-

vices. According to a conser-

vative estimate by India's

National Association of Soft-

ware and Service Companies

medical transcription, data

ing, call centres and other

services alone could yield

cumulative exports of more

years and create. Im new

Another issue addressed

by the taskforce was that of

increasing IT penetration in

the country and reducing

retail prices. It thus recom-

mended the elimination of

duty on IT components and

the enforcement of a high

rate of depreciation on com-

The depreciation allow-

ance on computers was

raised from 25 per cent to 60

per cent. This means that

most of the cost of the com-

puter can be written off in

This alone is expected to

boost PC sales by 10-12 per

importantly, it would allow

leasing companies to provide

computers at more attractive

One of the most important

taskforce, which is being

rates to the consumer.

puters and peripherals.

the first two years.

The minister's package

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market many processing the Bond or to be a sec-

**GW**C HISTORY

after obtaining "security clearance", telecoms officials the need to set up their own way rather than choose from

And companies with gate- a major deterrent." ways may not be able to telecom companies say is crucial for viability

The ill-defined "security have verbally stated that clearance" could also be used to delay the establishallowed to re-sell spare gate ment of gateways by VSNL's Delhi, suffer from a chronic rivals. "What's the process? That means smaller ISPs. Who will do it? How long internet access. "It could be can dial m.

India's still weak basic compete with VSNL for telecoms infrastructure will other business - something be another problem, especially at first. Private basic telecoms service providers are still available in only a handful of cities and many others, including the capital,

That means smaller lars, will it take? asks Ananda are often of poor quality minute you unloosen one which lack the resources or Palwai, chief executive of with plenty of static. That screw, it is bound to extend Wipro Communications, an means potential ISPs may to the fullest extent beyond gateway, may be required to with describing email service profind it tough to get the lines any rules and regulations."

way rather than choose from vider which plans to offer they need so that customers (Additional reporting by

"That will be the major constraint," says one telecoms executive. Still, as Internet services proliferate, some analysts say it will unleash an uncontrollable tive technical solutions to any shortcomings in the policy or its implementation.

Says IBM's Mr Sinha: "It is Lines that are available like an unwound coil. The (Additional reporting by



REGIONAL FOCUS SALTEC, CALCUTTA

### Good news for West Bengal

More cities are joining the country's drive to become a significant force in the sector, reports Kunai Bose in Calcutta

What Texas Instruments did for Bangalore, the south Indian city which has come to be known as the country's Silicon Valley, Computer Associates of the US is going to do for Calcutta's Salt Lake Electronics Complex

Bangalore stole a march over other Indian cities in the information technology Instruments established an export-oriented software uni

here as early as 1984. That was the first such venture in the country. The stamp of approval from Bangalore the natural destination for many foreign

and domestic software units Now, an official of Bengal Chamber of Commerce says: "CA opening its shop at Saltec in March last out Calcutta (West Bengal's capital city] on the country's

Π map. Webel, the West Benga government agency for IT ector promotion the IT sector, says: "The quick consolidation of business here by CA and its ambitious plans for the Saltec unit are noticed by

ect to provide Internet acces

school and college by 2003.

This would involve more

One of the unique pro-

grammes introduced by the

government under the task-

force is to boost IT in rural

areas. A pilot project has

been introduced to network

villages in the Warana

Nagar Cooperative Complex

in the state of Maharashtra.

Also, to revitalise education

in the Hindi-speaking north-

schemes have been floated

such as the development of

the city of Allahabad as a

The IT Taskforce has also

recommended a raft of mea-

sures to maximise the use of

IT in government. These

involve: each ministry or

government department ear-

marking 1-3 per cent of its budget for IT; a fund of

Rs7.000m to tackle the Y2K

problem in computers in

government organisations:

and IT literacy being made

all future government and

Recently, the taskforce

gave its second report to the Prime Minister. It suggested

a series of recommendations

to provide an impetus to hardware manufacturing.

with the intention of making industry strong enough to

meet the demands of a zero

new scheme known as Soft

Bonded IT Unit (S-BIT)

scheme. This is aimed at the integration of local and

export production to maxim-

ise economies of scale by

The speed with which the

taskforce has acted, and also

motivated the government to

move fast, is virtually

unprecedented in modern

One analyst in California

said it seemed that the

Prime Minister had not only

used a big vacuum cleaner

to sweep up all obstacles,

but had also created a new

The IT Taskforce is now

completing its final report,

which is expected to be

visionary. It has already set

an annual target of \$50bn of

software exports in 2008. Industry observers believe

this is achievable, especially

since past obstacles have

Bill Gates, the Microsoft

billionaire, recently set up

an research and develor

ment centre at Hyderabae

the emerging Silicon Valley

all the prerequisites to be a

the India's National Associa-

tion of Software and Service

Also, the government is is determined to achieve this

software superpower". India

IT vision for the country.

duty regime by 2003. This report has proposed a

easing controls.

ential requirement for

centre of excellence for IT.

than 100,000 schools.

software industry to become and PCs in every secondary

ware industry. Therefore, it ern belt of India, new

more oriented towards creat-

ing products and packages, a

environment favourable to

venture capital must be cre-

Apart from working to cre-

ate this, the government is

also setting up four major

venture capital funds with a

minimum capital of Rs500m

The government also saw

the need for more mergers

and acquisitions in the soft-

has streamlined the process

makeforeign acquisitions.

for Indian companies to

Among the major areas of

importance for the taskforce

are the Internet and tele-

coms. A revision of telecoms

policy is likely, as the task-

force is making its final

recommendations to the

But in the meantime,

based on the recommenda-

tions of the taskforce's first

ended the monopoly of the

state owned VSNL on pro-

viding international gate-

The government also

last-mile linkages by either

fibre optic or radio commu-

nication for IT application

enterprises. Moreover, the

government has also decided

to set up a high speed

national telecoms backbone

at a cost of Rs2.000m and to

make it fully operational by

However, one of the most

far-reaching recommenda-

tions of the taskforce is the

\*Operation Knowledge Cam-

paign". This is aimed at put-

ting IT education and IT-

based education on a nation-

wide basis. The Prime Minis-

ter has announced a scheme

under which a package con-

sisting of PCs and educa-

tional software would be

available for just Rs25,000 for

students, teachers and

setting up an educational

link all engineering colleges,

schools.

recommendations of the network called IUNET to

implemented quickly, is the universities and medical col-

introduction of the definition leges before 2000. It has

of "sweat equity" in Indian launched an ambitious proj-

Telecoms links remain a problem

ways for Internet access.

(Nasscom), such activities as report, the government

Prime Minister this month.

(£8m) each -

CA's Saltec unit is a joint venture with the Chatterjee Group, an associate of Soros Fund Management. Yet another big nameplate that Saltec boasts is PricewaterhouseCoopers

"We are very happy with the quality of intellectual capital available in Calcutta. savs Saniav Kumar. president of Computer . Associates.

"We have so far recruited 150 people for writing software and the team is being expanded. The joint venture. CATS, has nothing to complain about in the infrastructure at Saltec. "We will be investing \$100m in India in less than five years and there is no



Crowds throng around Calcutte's famous Howrah Bridge

claim a major portion of that investment." Purnendu Chatteriee. chairman of Chatterjee Group, says: "The principal

eason why we chose Calcutta for CATS is the availability of excellent numan resources. "And, since the software industry has begun to grow here recently, it will be easy for us to retain talents. We

will not have to contend with

high turnover of manpower

as is the case with companies operating out of Bangalore.
"My wholly owned TCG Software, which employs

more than 100 software writers, is also at Saltec precisely for the same reason. While the presence of

CATS and

PricewaterhouseCoopers is Saltec's strongest selling point, Shubaneswar, the capital of eastern Indian state Orissa, will be looked at seriously by prospective investors following the opening of software development centres by Infosvs and Satvam, India's two highly successful

According to the Association of Orissa, the state's recently announced IT policy and the steps taken of India's leading software cities have been noticed by BM and Microsoft.

J. B. Patnaik, chief minister of Orissa, admits that "some states are far ahead of us in IT business. We cannot be equal to them overnight."

The state entered the IT sectoronly in the middle of 1996 and is working hard to make up for the lost time. The Orissa Industrial Infrastructure Development Corporation is to build a software technology park over 200 acres and a multi-storied software complex in partnership with

It says the electronics zone of the export promotion industrial park, which will be close to Bhubaneswar, will be the "ideal location for hardware and software manufacturing

a private investor.

Orissa is aware that w Calcutta scores over Bhubaneswar is in the supply of high quality human

The state is taking steps to overcome this problem by creating the Indian Institute of Information Technology, It is negotiating with a US university for the opening of an offshore software training campus in Bhubaneswar.

"We want to create IT awareness among students at school level and the colleges in the state will offer graduation courses in computer science," says a government official. "It will be a different scene

altogether in five years. Orissa is not depending on bio names alone for heralding the growth of software industry. "New entrepreneurs with good ideas and skills but without adequate money will have an important role to play in the IT sector," says an

industry official, "A state sponsored venture capital fund with an initial Rs150m (\$3.56m) is being created to support new entrepreneurs.

Roopen Roy, director of PricewaterhouseCoopers in India, says: "Webel needs to be restructured. It should be split into two separate companies, one to develop and maintain software park infrastructure services and the other to run a venture capital fund. Ideally, both the companies should have partners from the private

sector." Companies such as Intel and CA think India has the capacity to become "world leader in value-added software" and have decided to play the role of venture

The challenge for West Bengal and Orissa will be to create the environment for new small software ventures to grow. Mr Chatterjee says the Marxist government in West Bengal jumped on to the IT bandwagon as it discovered the "tremendous job creating potential of the

sector" "But for West Bengal to gain leadership status in software development, it is essential to create a ministry of information and technology under a dynamic technology-savvy minister," he says.

"That will send the message about the government's intent and

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### Electronic market brings sizeable efficiency gains

Investors are shedding their initial reluctance to give up traditional ways of dealing in securities, now that the advantages have gradually become clear

When India decided to set up Depository put out an open a paperless share depository tender, inviting internatwo years ago, a crucial step financial markets, Tata Consulting Services was Well positioned to bid for the

India's biggest software house had already completed a similar project in Switzerland, where it designed the software for the Sega electronic share depository.

Sega was a three-to-fouryear project, with multiple systems, both back- and front-end, says S. Ramadorai, managing director of TCS. "It gave us the confidence to bid for these projects on a global scale."

However, TCS was not an automatic choice for the Indian contract. The fledgling National Securities

The stock exchange, Mumbai: a paperless market

in efforts to modernise its the contract. TCS won against stiff competition from companies including

> The fact that TCS was Indian was the icing on the cake. But it was not the driving factor, says Chandrashekar Bhave, managing director of the depository.

We came to the conclusion that the best way to go ready-made, and we found the Swiss depository had the closest software to what we would need," he said.

The project brief had three basic components - the central depository system, the front-end system to be used by brokers and banks and



development cost and time.

This reflected the common

core function. The underly-

mation you want to store." However, TCS had to rede-

Early on, the depository decided to piggy-back on the satellite terminal network recently set up by the National Stock Exchange for its trading systems to avoid duplicating equipment.

We wanted to be opera tional fast," says Rajesh Doshi, executive director at the depository responsible

We wanted a proven solution which could be adapted to Indian conditions, scaleable so it could be expanded, and reliable."

The depository decided to In the end roughly 70 per take responsibility for comcent of the software was missioning all the front-end user software to ensure the market was ready to use the depository when it arrived. ing depository stores dema-This would also keep the terialised information, says user cost down by spreading Mr Ramadoral. It is purely a repository of all the infordevelopment expenses

"We said we would give them a solution but they velop about 30 per cent of needed to pay for it," says the code. This section dealt Mr Doshi. So it had to be with the way transactions affordable for participants take place, the regulations ranging from Citibank to a that apply, the type of participants in the market and the

TCS proposed a solution way stock is added and subbased on a central IBM tracted and fees are levied.

mainframe, but using a Win-One big difference related to the fact that small invesdows NT-Sequel server systors play a much more active tem to link up with brokers rather than the IBM OS/2 role in India's stock markets than in Switzerland. system used by the Swiss

Small traders and small investors account for about We changed the front-end piece," says Mr Ramadorai. 85 per cent of transactions says Mr Bhave. By value it is He adds that the Indian arrangement was technologiprobably 40 per cent retail. But, for the computer, entry cally superior and had greater functionality. It was value is immaterial - it is the number of entries that

He says basing the Indian counts. Thus India's depository software on the existing had to be prepared for a much higher volume of Swiss solution helped to cut much smaller transactions. At the peak, about 150 TCS programmers worked on the depository project and the basic system was operational in six months at a cost of about Rs400m (\$10m).

The bulk of the cost was hardware. Software cost about Rs100m. Participating brokers paid Rs300,000 each recouping part, but not all, of the development cost.

The depository went live in November, 1996. Its systems worked. TCS remained actively involved and the depository later added more sophisticated functions.

But for a year, it struggled to win business as investors declined to swap easily traded paper shares for paperless transactions, for which there was little demand. It took a big education campaign and intervention by India's market regulator to set the ball rolling. At the start of this year, the Securities and Exchange Board began to force institu-

to trade in popular stocks. This finally triggered a rush to join. Investors signed up and began swapping share certificates for paperless shares. There are 100,000 accounts so far, with a vol-

tions to use paperless shares

ume of \$4bn to date and rising daily.

#### Continual need for fine-tunina

The sharp increase brought teething troubles. Whenever we have encountered problems these have been of volumes," says Mr Bhave. "You need constant fine-tuning of systems. A system is tested for a certain volume. If the volume goes beyond that, there may be

However, bankers and brokers, a notoriously demanding group, have few com-plaints. The depository is now accepted as a secure and efficient system for settling institutional deals and retail investors are catching

Mr Bhave says the application of information technol-ogy has brought big efficiency gains for the Indian stock market. Custody and transaction costs have been reduced sharply.

Buyers also benefit from

stamp duty exemption. Brokers profit from a fall in processing costs and instant transfer, which reduces their need to finance trades with oridging loans.

The paperless market is cleaner and more secure than the paper market with its many forged and disputed

For TCS, the National Depository involvement proved the importance of building teams with industry experience and management skills as well as programming expertise in order to deliver a complex contract cheaply and on time.

It is certainly a showpiece," says Mr Ramadorai. Since building India's depository, the company has won contracts to design the software for new electronic depositories in Malaysia and



### Gateway to a vast array of online resources

The newcomer has already become the country's most visited web site

intel, the world's largest semiconductor manufacturer, has been notably absent from the list of US technology companies, including other chipmakers such as Texas Instruments and Motorola, that have set up software development or design operations in India. But, during a recent visit to India, Craig Barrett, Intel's new chief executive, agreed to make the group's first direct investment in India a small minority stake of about 10 per cent in a

Mumbai (Bombay)-based internet content start-up th plans to become India's oremier "portal" site. Rediff was set-up two-and-a-half years ago by Ajit Balakrishnan. "We want to be the

Indians in India and overseas," says Mr\_ Balakrishnan, who has assembled a team, including 15 journalists, to help turn his ambitions into reality. The portal site, which has

ultimate portal site for

aiready become india's most



than 650,000 visitors a month, provides its own news service, a free e-mail service and a home page creation service which enables users to construct their own web homepages without technical assistance.

2,000 vacancies daily and which allows online applications. It also provide teway to the vast information resources now available on the web about mdia and is planeuring an excending range of

ransactional services. These include an electronic music store eaturing 40,000 titles, a bookshop with 100,000 titles, a Divali (Hindu Festiva of Light) gift shop, film reviews and Bombay theatre booking service and online travel agency enabling visitors to choose and book hotels in India online.

"We want to build a calable model based on both advertising and transaction revenues," says Mr Balakrishnan. So far, the site, built using IBM's Net Commerce software running on Intel-based Pentium II servers, has 25 advertisers. He reckons 20 per cent of Indians overseas already log into the site. "Our goal is to have a 40 per cent share," he adds.

Paul Taylor

### India's IT mantra

large pool of relatively lowcost, technically qualified and English-speaking software professionals that has underpinned its success.

An entry-level software programmer recruited by one of India's top domestic software companies can expect to earn about \$500 a month to start with, rising to about \$1,000 after three years and \$2,000 a month after six years.

As competition grows for the best graduates and engineers with experience, wages are rising rapidly and attri-

tion rates have soared. "India is facing a severe shortage of expertise and companies are struggling to keep people," says Rahul Kanodia, of Datamatics, "The biggest problem is at

the project manager level." Wages have been rising at about 25 per cent a year N. R. Narayana Murthy, Infosys' chief executive. On that basis the cost advantage enjoyed by Indian companies in the \$750bn-a-year global software market will erode quickly. Offsetting this wage

also rising rapidly, from about \$21,000 an engineer in 1992 to \$45,000 by 1996. As a result India is still very costcompetitive. But most leading Indian

software companies recogmise that cost is not a sustainable strategic advantage. Instead, they have developed strategies which they believe will enable them to build their brands and move up the value ladder, either by delivering high quality customised services and consulting or by developing branded products for the

giobal market. Both strategies have their advantages and dangers. Most leading Indian software companies have already and have shifted work offshore as the confidence of the customers has grown.

 As a result the proportion for the past five years," says of work undertaken for clients on-site has fallen from more than 90 per cent at the start of the decade to less than 60 per cent today.

Although on the face of it, India's share of the overall world software market inflation, Nasscom calcu- appears tiny, some analysts

lates that productivity is including those at First Global in Bombay, suggest target market - support and maintenance and a small element of systems integration and application development - is actually around 5.5 per cent and will rise to about 11 per cent by the end of the

> This, coupled with a downturn in year 2000 work, could result in slowing growth. they suggest.

If this turns out to be true it is likely that it will be the smaller and medium-sized companies that are most dependent on basic com-

In contrast, some of the top tier companies are ticular in building software banking, enterprise resource planning area - or developing software modules and components for use in oth-

er's packages "This is a high risk, high reward strategy," says R. Ravisankar, Citicoro Information Technology Industries' chief executive. "You

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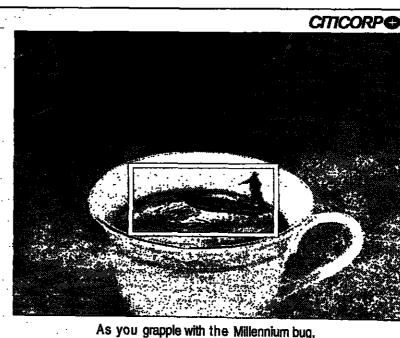
50, what will it be? Plain old tea or MBT?

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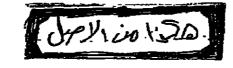
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Man Ly South And St.



The millennium bomb Race to head off the year 2000 crisis: Pages 3-11



The digital office Systems tailored for smaller companies: Pages 12-15



Computer games Developers seek a far wider audience: Page 17



oomsters have been having a field day with their grim warnings about what could happen when computer . clocks switch to 2000 - but some of their forecasts have already started to come true.

Many companies are experiencing year 2000 (Y2K) software-related failures and quietly dealing with the consequences. This trend will gather pace, even though the new millennium is still more than a year away.

While much has been discusabout the potential consequences of hundreds of millions of computer clocks turning over to the 2000 date and triggering software failures, the fact is that Y2K failures are already becoming increasingly common.

The problem is straining information technology budgets and delaying the development of key business opportunities. A survey by the Information

Technology Association of, America, a trade organisation, found earlier this year that 44 per cent of around 456 companies surveyed had already experienced Y2K-related failures in IT systems dealing with their day-to-day operations.

A further 67 per cent reported Y2K failures in IT systems under test conditions, demonstrating that fixing the software usually introduces new bugs that can only be discovered by comprehensive testing.

Y2K failures have not generally stopped businesses in their tracks, but awkward upsets have occurred.

There have already been some high-profile Y2K system failures but companies don't want to admit they've had problems." says Ed Yourdon, chairman and co-founder of the Cutter Consertium, an IT consultancy in the US, and a leading expert on Y2K and IT issues. "We will see more of these types of failures over the next year,"

#### Trigger for early failures

Such early fl' system re occur more often as 2000. approaches, simply because IT systems generally look ahead in terms of forecasting sales, orders and other business functions.

Gartner Group, the US IT consultancy, estimates that most user-developed applications will experience a Y2K-related failure by the close of 1998.

The rollover of company and government fiscal years will be another trigger for early Y2K failures. Next spring, the 2000 fiscal years of New York city and several US states, plus the government of Mexico, will

We will see very public Y2K failures," predicts Mr Yourdon. Y2K failures during this time will give some indication of what private sector companies can

With time running out, it is already too late for companies to attempt a wide-ranging overhaul

of their IT systems. "It was already too late to make major fixes by the beginning of this year," notes Capers Jones, an internationally respected Y2K authority and chief scientist of Artemis Management Systems of the US.



### Millennium 'bomb' is already ticking

The need to ensure that vital systems do not fail in 2000 is holding up other IT work, writes Tom Foremski

Mr Jones is recommending that his clients do what they can to implement Y2K solutions while making contingency plans for worst case scenarios.

Fixing older systems is time-coasuming, and replacing them with new ones requires at least two years of planning. installation and testing. Yet Gartner estimates that 28 per cent of all US companies have yet Mr Jones, who advises

overnments on Y2K issues, says that the US and the UK are ahead of other countries in fixing their computer systems, with the rest of the world far behind. Some economists, notably Ed

Yardeni, chief economist of Deutsche Bank Securities in New York, have warned that Y2K problems have a 70 per cent chance of triggering a global

Mr Jones says that with his best case scenario of 85 per cent of fixes completed in the US and the UK, "it puts us on the cusp of a possible recession".

He had advised the European Union to delay the launch of the euro, arguing that IT departments do not have the resources to tackle two of the most challenging IT projects ever

encountered The euro affects about 10 million software applications, but Y2K affects some 36 million

software applications workdwide," estimates Mr Jones. Usually about 15 per cent of IT projects are six months or more behind schedule. With Y2K the most challenging IT project of all time, many companies will not

complete their Y2K work in time. There are tools available for dealing with Y2K problems, but this is still a tedlous job. "We have a tool that helps with Y2K but with 900 applications, we still need to go through each application and then test it to make sure there are no problems," notes Nadav Aharonov, systems analyst at the

University of San Francisco. "It Many outside the IT profession have been hoping a "silver bullet" will be developed that would easily fix Y2K problems,

but IT professionals know such a thing is impossible. "A silver bullet is impossible to develop. There are hundreds of computer languages and a wide variety of systems," says Kazim

Isfahani, industry analyst at Giga Information Group, an IT consultancy in the US. Even if companies have been diligent and converted all their

mission critical applications to be Y2K compliant, there are many other dangers.

#### Power and telecom services

"If the electric power grid falls, you won't know if you have a Y2K systems failure," says Mr Jones. And with an interlocked economy, a Y2K failure with a company's key supplier will create a significant problem.

There are also systems harbouring Y2K problems that many companies have yet to address. "Telecommunications systems are a potential problem," says Mr Yourdon. "Companies may have addressed their mission critical systems but haven't considered if their PBX is

means that already hard-pressed. IT departments will not be able to devote time to exploiting key business opportunities.

"We have found that most IT departments have stopped et ti bit so that they can concentrate on Y2K," says Mr Isfahani. "But electronic commerce projects have not been delayed. Most companies consider it a strategic project."

Mr Yourdon predicts: "By the middle of 1999, you will see IT spending on hardware and software drop considerably because IT departments will



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Competition winners announce today: see full details on page 22

want to stabilise their systems

The extra spending on Y2K



and won't want to install new systems until they know they can get through the date change."

Many IT vendors are already

warning their shareholders that Y2K work will result in lower sales in 1999. "We think that our sales won't grow as fast in 1999 because of Y2K work within companies," notes Mark Nittler, US-based PeopleSoft, which provides software for large corporations.

Apart from the US and the UK. most other countries are way behind in their Y2K projects, either because they have not considered how important the issue is or, in cases such as Russia, there is no money for such work. And, with much of the world in economic recession, the lack of money makes Y2K a low priority.

While some may recoil at the doom and gloom scenarios for Y2K failures, others think it could turn out to be a relatively minor problem. In a 450-page report released earlier this year by Merrill Lynch - Y2K: Implications for Investors - the US investment bank's analysts claim that the majority of Y2K work will be completed in time.

"Most companies have been working on their Y2K projects for two years and there are one and a half years left." the report says. "Microsoft, Latin America and Communism all changed radically in a lot less

The Y2K problem has its roots in the early years of the

computer industry when memory and data storage was expensive and required that programmers used two-digit date codes. By the early 1980s, this was no longer an issue, yet programmers

continued to use two-digit codes. "In many large organisations, including the Department of Defense, there were standards that mandated the use of two digit codes," says Mr Jones. "I programmers using four-digit date codes who were told to rewrite their software because it did not comply with their

organisation's standards." Mr Yourdon says that although he warned in the early 1970s that two-digit date fields would become a problem, he only began publicising the issue in 1995. "Even in 1995, there was not much of an audience for Y2K

One of the first programmers who tried to draw attention to the problem at an early date was BIII Schoen. a US software expert who has worked for several leading companies. In 1983, he developed the first commercial Y2K tool and spent several frustrating years making presentations to leading companies. Only two

corporations bought the tool. "If companies had begun using. four-digit year dates in the early 1980s, you would not have heard about the year 2000 problem," Mr Schoen says.

"It would have been a trivial thing to use four-digit dates. It would not have cost anything in terms of labour or computer

Such early preparations would have avoided most of the global cost of dealing with Y2K, estimates for which range from about \$600bn from Gartner Group to Mr Jones' figure of \$1,340bn. "Companies will effectively have nothing to show for this

investment," adds Mr Yourdon. Mr Schoen is scathing about the IT sector's failure to tackle the problem in good time. "I am and I knew about the problem 20 years ago, and so did many other programmers.

You have to ask the question why didn't the IT gurus, the major IT systems providers, the IT standards organisations provide the early leadership that recommended that four-digit date codes be used?

"We wouldn't be in this mess if they had."

### On other pages

☐ IT guru's viewpoint: Peter de Jager explains why comp must show they have tackled the Y2K problem - or the public may panic: page 3. ☐ Impact on financial services: much work to done: page 4. ☐ Sectors at risk: pages 5-6. ☐ Embedded chips: system failures could be a matter of life and death: page 8 ☐ Millenvium stocks: high-flyers

bump: page 9 ☐ Investors worried by some companies' silence: page 9 ☐ Failure could lead to a legal claims bonanza: page 10 ☐ Role of the Y2K software 'factories': page 11

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### Windows faces a fresh challenge from rivals

Microsoft and Oracle look set to do battle for control of the industry, reports George Black

Oracle, the world's leading sion 7.0, launched at Comdatabase vendor, is to dex, is claimed to be much attempt to challenge the better able than its predecesdominance of Microsoft's sor to support large installa-Windows operating system. At Comdex, the trade such as SAP's R/3.

show in Las Vegas, Oracle announced a plan for a new type of server which would run without the need for

Larry Ellison, Oracle's chief executive, said he had discussed the project, codenamed "Raw Iron", with several leading bardware manufacturers, including Compaq, Dell. Hewlett-Packard and Sun Microsystems. He said was confident that machines of this type would be on the market by March

At the same time, Microsoft is seeking to replace Oracle as the primary supplier of corporate databases. Microsoft's SQL Server vertions of business software



(8i) would be substantially aper than the SQL Server 7.0 and would compete with Microsoft's Access database in smaller companies. Mr Ellison and Bill Gates,

Microsoft's chief executive. jointly opened Comdex, giving opposing views of the industry's future. Mr Gates said the PC

would "go far beyond what any systems have been able to do in the past," although he conceded that it still

needed to be made easier to Mr Ellison returned to his theme that PCs and client/ server networks were too expensive and inefficient to maintain their present role. Two years ago, Mr Ellison

predicted that the "network computer" - a cut-down version of the PC, receiving its software mainly from a server across a network would supplant the traditional PC. So far, the NC has had

only limited success among large user, but some vendors and industry experts are still convinced it will ultimately At Comdex, Mr Ellison

argued that the Internet would make Windows superwhether Oracle can convince

of years.

high-powered workstations,

will almost certainly join the

Oracle camp, because it is in

a legal dispute with Micro-

soft over the development of

the Java language. See

IBM, which has been a

prominent backer of the NC

concept, is also likely to sup-

port Oracle in order to try to

loosen Microsoft's grip on

However, it is doubtful

how many others may fol-

low. Hewlett-Packard and

Compaq, which now owns

Digital, are both now more

the industry.

Microsoft.

are now heading for an intense marketing battle to persuade hardware and software companies to back their differing strategies. Sun, a leading producer of

> Larry Ellison, chief executive of Oracle, introduces new software a the Oracle Open World conference in San Francisco, last mo The new software, called OracleSi, is designed to replace 'client/ the internet to store data at a sincle, centralised location

offers a real prospect of ach- years. ieving a big reduction in the total cost of ownership of

closely associated with

information technology. It is the cost of supporting systems, rather than the purchase price, which has been troubling finance and

large users that its model IT directors in the past few

suaded that the chance of substantial cost-savings is worth the massive upheaval and considerable business risk involved in abandoning

JAVA DISPUTE

### Sun wins a round

by a court in California to Intel's vice-president of modify its Windows 98 and Internet technologies. Internet Explorer products alleged that Microsoft had to comply with the terms of repeatedly tried to force his its licence to use Sun Micro- company to close down its systems' Java language.

The judge's preliminary injunction demanded that Microsoft stop selling an launch of the MMX generaaltered version of Java. US tion of Intel chips in 1995. government lawyers say the ruling will help their antitrust case against Microsoft utive, told Andy Grove, forwhich is proceeding in a mer chief executive of Intel, court in Washington.

Microsoft is accused. among other charges, of vent it becoming a threat to tem. The company says the decision will have little him an ally of Sun. impact on the anti-trust

SYSTEMS?

software division, making "a credible and fairly terrifying threat" to subvert the

According to Intel, Bill Gates, Microsoft's chief execto shut down the Intel architecture laboratories which were working on Internet manipulating Java to pre- software. An internal Microits Windows operating sys- that Microsoft mistrusted Mr McGeady and considered

The court was told that case. In the Washington Microsoft feared Intel would court, damaging evidence lead a coalition of competiagainst Microsoft was given tors seeking to enter the by Intel, the chip manufac- operating system market. Netscape.

Microsoft has been ordered turer. Steven McGeady, Microsoft believed that Intel had no right to intrude into the area dominated by Windows, the court heard.

Mr McGeady also testified that Microsoft had detailed plans to "cut off the air supply" to Netscape Communications by giving away its Internet Explorer browser to prevent Netscape becoming established in that market. The alleged abuse of Microsoft's monopoly power to crush Netscape is one of the government's main charges. Mr Gates, in his videotaped evidence, denied threatening Intel or putting pressure on soft e-mail of 1996 indicated it to stop supporting Net-

> America Online, the leading Internet service provider, has testified that Microsoft offered "tens of millions of dollars" to do a deal with it rather than with

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YEAR 2000 COMPUTER-COMPLIANCE

### Counting the cost

Companies and public services still face substantial risks from the so-called millenium "bomb", according to new reports by Cap Gemini and Taskforce 2000.

Cap Gemini, the French computing services company, said the cost of conversion had risen by 20 per cent in the past six months as companies found out the scale of the problem. This increased the likelihood that projects would slip behind schedule. The timetable was already very tight for many organisations, with too little time allocated to testing systems, it said.

Smaller companies were at greatest risk and their failure could disrupt whole supply chains. There was a lack of planning to ensure business continuity, especially in Europe, when compared to the US.

that public services could Police forces in Britrain come to a halt because of the are working with the army millennium date problem. on contingency plans to cope with emergencies which Most government bodies were doing too little testing. could result from the year it claimed, thus creating a 2000 problem risk of significant break-

Water and electricity supplies could be disrupted. warned United Utilities, Sev-Several UK government eral large US companies departments are classed as have recently admitted seri-"high risk" by the agency. Some are badly behind ous risks related to year 2000 schedule and will not have time to complete testing by

For detailed reports, se-

RESEARCH DIGEST

2000. It proposed that the

government should put more

### **L-commerce** surges ahead

e-commerce will grow massively, from \$38.5m last year to \$8.07bn in 2004, predicts Frost & Sullivan, the US defines e-commerce narrowly as real-time commercial transactions on the Internet, excluding advertising and other sources of revenue. Over the same period, the number of Internet subscribers will shoot up from 9.9m to 44.9m. The Internet

market for consumer products is seen likely to become "the fastest growing market in history." Using a broader definition, Forrester Research, another mates that Internet-based commerce could reach

US market researcher, esti-\$3,200bn worldwide by 2003. This would represent nearly 5 per cent of global sales. Its low-end estimate is \$1,400bn. The study includes electronic data interchange transactions expected to take place on the Internet.

#### Applications boom predicted

The applications software market will more than double in the next five years to \$48bn, forecasts a new report by International Data Corporation, in contrast to some other analysts' warnings of a slowdown. Some of the fastest growth will come in the telecoms sector, as deregulation, greater competition, mergers and the rise in Internet traffic have an impact. Manufacturing will account for a third of the total software revenue.

#### **UK industry lags** on euro

Only 18 per cent of UK manufacturing companies are fully ready for the euro, according to a survey by the Computers In Manufacturing exhibition organisers.

The study, based on 1,700 phone interviews with IT new competitors and are not managers in manufacturing adopting information techcompanies, found that more than 80 per cent had no written guarantees that their systems could handle the euro. A quarter had taken no action to replace non-compliant systems. •

#### NT the 'platform of reduced by new technology. choice'

planning to use Microsoft's Windows NT as the operating system for their critical applications, says a survey by EMC, the storage equip-

Among 850 IT executives in large companies worldwide, 83 per cent will adopt NT as their primary system and most say their volume of data based on NT is already increasing rapidly. But most IT managers admit they lack the tools to manage these systems properly, KMC says.

#### **Big outsourcing** rise forseen

UK public sector outsourcing will grow by 66 per cent over the next five years, forecasts the Kable consultancy. The market is dominated by EDS with 32 per cent; Racal is second with 8

"Although there are problems with some of the public sector contracts, there is no real sign that these are preventing many more being signed up," says research manager Paul Smith.

#### Data to overtake voice

Within the next two years the total volume of data car ried over the world's tele communications networks will exceed that of voice, says PriceWaterhouseCoopers in its "Technology Fore cast 1999".

As a result, telecommuni cations operators will need to transform fundamentally their infrastructure, from the circuit-switched networks they have invested in for over 100 years to packet switched networks designed primarily for data.

#### **UK** banks called 'complacent'

The UK's high street banks are complacent about nology aggressively enough. says a study by Deloitte Consulting.

It warns that the percentage of customers switching their accounts to other banks will rise sharply as the costs of doing so are

The banks need to adopt the Internet and online banking to provide a better A big majority of informa- service, says the consul-

### AOL snaps up Netscape

acquiring Netscape Communications, the browser vendor, for \$4.2bn in an all-share deal. 🐣

\$4.2bn in an all-share deal.

AOL and Sun Microsystems shall agreed to work together to accelerate the development of Netscape's electronic commerce accelerate the development of Netscape's electronic commerce accelerate business. The news is a series bloom an accelerate which currently supplies its browser to AOL on an exclusive basis. Microsoft said the deal would undercut the governmen anti-trust case, but government lawyers denied this.

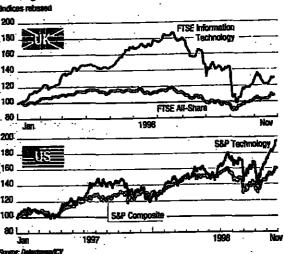
#### **Sun under fire over Java**

Sun Microsystems is being challenged over its ownership of the Java language. A group of competitors including Microsoft and kard say they will set their own standard for applying the language to programming devices such as mobile phones and printers. Java Lobby, a systems developers' organisation, also wants Sun to collaborate. Sun responded that it could develop Java standards faster than any industry group and threatened competitors with legal action if they broke their contracts for use of the language.

### New range from Compaq

Compaq, the world leader in the personal computer market has announced new machines fitted with moderns claimed to be 300 times faster than the current standard. The new PCs will have DSL moderns, capable of connecting to the internet at 1.5 megabits per second, rather than the 56K standard connection. Traditionally dedicated to the reseller channel, Compaq intends to start selling heavily direct to customers through the internet

How blob tech sectors outperform



#### **HP improves PC sales**

Hewlett-Packard's personal computers and printers sold well in the third quarter. Revenues were up by 4 per cent to \$12.2bn. with net profits down by 12 per cent to \$710m, but slightly above expectations after special charges of \$170m for voluntary redundancies and asset write-offs. The weak markets of Asia and Latin America could continue to affect results in the next year, the company warned. Annual revenues were up by 10 per cent to \$47bn, with profit down 6 per cent to \$2.9bn.

### Rising demand for Intel chips

Intel, the chip manufacturer, has said that its fourth quarter revenues will be above expectations because of rising worldwide demand for personal computers of all types. It has revised its forecast upward, from a slight increase in the fourth quarter to between 8 and 10 per cent above its third quarter s some improvement in the Ji market. The company is considering building a factory in eastern Europe or the Baltic States.

### **UK start-up attracts investment**

Intal and Cisco, the network equipment maker, have each invested \$10m in Bookham Technologies, a UK start-up company which claims a world lead in developing optics on a chip. The new technology is aimed at cutting the cost of telecommunications by doing away with the need for expensive equipment to convert signals from optical fibre lines to signals for copper wires. Bookham is privately owned and at present still making a loss.

### Asian boost for Dell

Dell, the personal computer maker, has bucked the overall trend by recording a 49 per cent increase in sales in the Asia Pacific region, including Japan, in the third quarter. Total revenues were up by 51 per cent to \$4.8bn, with net profits up by 55 per cent to \$384m. The results were slightly above most analysts' expectations. Michael Dell, the chief executive, said conditions in the technology sector remained "healthy" and the company was growing at five times the industry average rate. Winning web sites: see page 22

### EDS and IBM win welfare deal

A consortium led by EDS and IBM has won a contract with an estimated value of £7on to run the UK Social Security-Department's computer systems over the next ten years. The group, which also includes Cable and Wireless and PricewaterhouseCoopers, has been appointed to undertake the Accord project, operating the department's benefit administration systems. These include mainframes, mid-range and desktop computers.

### Microsoft's wireless data venture

A joint venture is being formed by Microsoft with Qualcomm, a developer of wireless communications products. The aim is to develop software to use with a new generation of devices that combine mobile phone and portable computer technology. The partnership could compete with the recently announced joint venture between Psion, Motorola, Nokia and Ericsson.

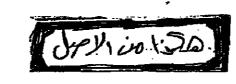
### Baan founder quits board

Jan Baan, founder of the Dutch business software developer, is to leave the board of the company after its shares fell by 80 per cent in the past few months. Management of the company was handed over in July to Tom Tinsley, as chairman. Further non-executive directors are expected to be appointed. Bean is a principal competitor with SAP, Oracle and PeopleSoft.

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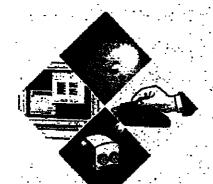
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23 Page

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#### The FT Review of Information Technology

This review is published on the first Wednesday of the month. In addition, information technology articles appear regularly in 'Inside Track' in section one of the FT. The IT Appointments section is also published each Wednesday.

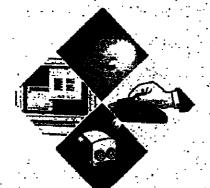
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### good news about the year 2000

Spreading the

IT GURU'S VIEWPOINT: PETER DE JAGER

Companies must show how they have tackled the millennium problem and not be put off by lawyers - or the public may panic, writes Rod Newing

mber 31, 1999, in Dublin, sircraft. The reason is the need to spread some good news about the year 2000 justifiable panic."

them over the next few months and if they convince

Mr de Jager, whose back nothing. ground is in mathematics and computer science, fore as we have started, a trecast some seven years ago the problems that would has been expended," says Mr 2000 arrived. He has since a programmer for banks, become a leading guru in insurance companies and believes there needs to be

to pass the evening of they have actually fixed and what remains to be done," "the best place for music in he says. "Unless these all of Ireland". Instead, he achievements start becoming widely known, people will assume nothing has been done and there will be

He is not expecting "I am surprisingly pleased by the tremendous progress the US Federal Aviation raft will be grounded every-Authority and the airlines have made," he says. "I predict localised blackouts intend to work closely with in some locations. He believes we have lost sight me of some things, I will of the fact that the year 2000 announce that I plan to be issue was only ever going to be catastrophic if people did be catastrophic if people did

mendous amount of effort occur for computers when de Jager, who has worked as this subject. He strongly retailers, as well as for IBM. "The CIBC bank in Canada alone has 1,000 working on

the problem, which is good "Now is the time for com- news, but at the moment panies to say honestly what there's no public evidence of

2000 problem is and are thus generating the mon

Peter de Jager was planning they have achieved, what the progress made. "It is time for the lawyers to shut up and get out of the picture. Boards must communicate what they have ments, holding public meetings, talking to the media

ing the good news." Mr de Jager is frequently asked: "Should I take my says the banks have done a tremendous amount of work which must be communiotherwise they will be nervous. And if they are nervous, they will take their money out.

the emotive word "panic" he says there will be disruptions and he advises people to prepare for the year 2000 in the same rational way Americans prepare for a hurricane or an earthquake.

All organisations must put contingency plans in place so that when unforeseen problems occur, business can continue. Customers and the public need to know they are not going to be affected and will continue to get ser-

"It frustrates me immensely that I am now talking about contingency contingency plan is something you talk about when you have failed to solve the problem in the first place. had an opportunity to solve not to do it. It is a sad com- 25 per cent of existing promentary on both management and government!" businesses have not yet cant by the end of 1999. started to address the year "There can be no more



one per cent don't even use a euro could be the worst he meets are displaying cau-computer and the rest use thing Europe has ever done, tious optimism. They sound PC-based packaged software,

Medium and large companies are different, because they have the problem of however, the euro's arrival serious attempt at delivering embedded chips. Mr de Jager is imminent. expects embedded systems to cause problems, but believes that the number of failures will be very small. Unfortunately, they will be plans," says Mr de Jager. "A in areas with a large impact, motivation needed to fix it. ing his flight. such as in a chemical plant

or on a ship. Mr de Jager believes that all organisations will drop year - and that 40 per cent grammers are on year 2000 tasks and he expects the Some 80 per cent of small number to approach 100 per

2000 issue, but that does not new toys until we clean up never."

not as a comment on the determined, but not too sure ing resource demand to the completent. They recognise year 2000. It doesn't matter if it is delayed." At this stage, which is a positive sign of a

People are finally begin-

"A tremendous amount of work has been expended and that I will put myself on a we are making good prog- plane that evening, then ress," he says, "We are not actions will speak louder Right from the beginning we non-year 2000 projects next going to get everything than words," he says. "We done, but it will not be the need to communicate good this problem and we chose have already done so. Only end of the world. Anyone news and I am willing to be who says that the year 2000 part of it if I can. issue will not be a problem for their organisation is Deter de Jager has created ignoring that fact that his- The Year 2000 Information torically, 80 per cent of pro- Center

jects are delivered late or

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Many year 2000 managers

ning to realise how big and if the airline industry can how serious the year 2000 convince him it is safe to fly, problem is and are thus gen- he will put an end to a lot of erating the momentum and arguments simply by book-

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### Much work remains to be done

Increasing anxiety among bank customers could be more damaging than the year 2000 problem itself

financial services industry leads all others in preparedness for the millennium date problem ~ or the Y2K issue, as it is widely known.

The bad news is that much work still needs to be done if banks are to shake off the nightmare vision of long queues at the teller machines on the eve of 2000.

The banking industry, more than any other, is built on confidence. Recent events in Russia and other troubled economies have shown that a fall in confidence in the banking sector has customers rushing to withdraw their hard-earned savings.

Many banks are worried that the millennium "bomb" could trigger similar behaviour. The Federal Reserve. the US central bank, takes the fear very seriously and is prepared to pump an additional \$50bn in cash into the US economy at the end of 1999 to keep teller machines well stocked or allow nervous investors to liquidate their investments.

Industry experts insist such actions are unwarranted. "We do not recommend that you take [all] your money out of the bank," says Andy Kyte, Y2K analyst at Gartner Group, the IT research concern.

The good news is that the plans and customers should just keep their normal cash float," adds Peter Lawless, who heads IBM's Y2K initiative in the European finan-

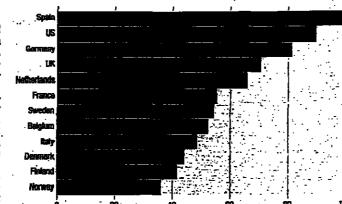
cial sector. The financial sector is traditionally a stronghold for IBM mainframe computers, and the company knows it has a heavy responsibility in helping institutions to achieve Y2K compliance.

As well as making its own hardware and software compliant, it is also helping institutions to test their millions of lines of custom programs, many of which were written long before the Y2K issue was widely known.

But the Y2K issue affects more than just mainframes. Gartner Group knows of one bank with more than 12m lines of PC programs that have to be checked for potential year 2000 problems.

Most are non-critical applications, such as word processors or spreadsheets, but Gartner has found several worrying exceptions, includcurrency trading application on a PC spreadsheet.

IT managers in European institutions have the extra headache of the euro. The Bundesbank, Germany's central bank, recently said that the euro was getting priority The banking industry is treatment in Germany and ahead of the curve in its Y2K that had obliged it to set a Progress to date: how much has been spent Year 2000 as % of annual IT spend

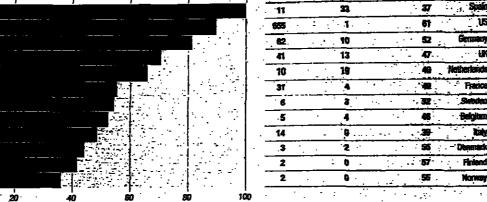


relatively late deadline of banking. July 1, 1999, for the German financial services industry to

complete Y2K preparations. The competing pressures on IT resources in the European banking sector will come to a head next year and push IT spending by European retail banks to a record \$21.7bn, according to Datamonitor, the British

consultancy.

Beyond 2000, these levels ing one bank running its of investment will not be sustainable, Datamonitor predicts. Spending will thus decline, although not dramatically. The drop in Y2Kspecific expenditure will be partly compensated for by greater investment on large-scale integration work as the pace of mergers and acquisitions heats up in European



It was once expected that the Y2K problem would accelerate mergers and acquisitions when weaker much more than just banks' banks realised they did not cash machines, although have the resources to fix the problem themselves.

"We know of banks in the US where the Y2K risk was one of the reasons for them merging," says Matthew Hotle, research director at Gartner. However, the Federal

year to dampen merger mania by warning that banks would not be allowed to merge if their Y2K projects were not well advanced. "We are now seeing a slowdown in mergers

Year 2000 contingency plans

Y2K issue extremely seriously;" says Mr Lawless.

% of organisations who will not have

"finished" by Jan ( 2000

The millennium "bomb" has the potential to affect cash machines, although this is usually the public's closest encounter with banking technology and malfunctioning teller machines will inevitably feature heavily in

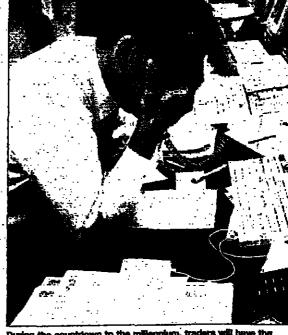
media reports on the first day of the new millennium. "Anything that goes Reserve moved earlier this 2000 is going to be blamed on the Y2K bug whether or not its really to blame," says Margaret Joachim, European head of Y2K services for EDS, the IT services com-

and acquisitions because could affect the financial serbanks are having to take the vices industry in ways that

are not easily apparent Even though the industry has made good progress in ensuring its own systems are year 2000-proof, it could still suffer serious problems if, for example, customers were unable to meet loan payments because their own

systems were down. Analysts fear that widespread problems suffered by borrowers could have a serious impact on lending instiwrong at the beginning of tutions, resulting in an increased frequency of defaults. Financial institutions thus also need to educate their borrowers about the importance of the Y2K

The financial services pany. The financial services
The millennium problem industry is secretive by nature but government regulators are mandating banks,



added headache of wondering if their IT systems can cope

exchanges and brokers to meet myriad Y2K requirements and disclose informa-

In the US, the Securities and Exchange Commission recently charged 37 brokerage firms for failing to report the status of their Y2K

One of the biggest worries in the industry is containing the "systemic risk" that the Y2K problem potentially poses. The industry operates on a global basis with payment networks and trading systems closely intercon- be crucial to the financial

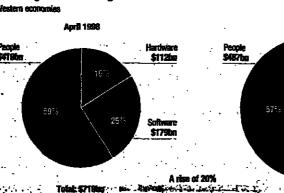
Leading institutions know their well advanced Y2K developed countries do not also take action.

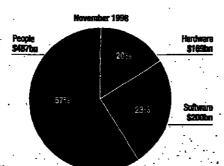
To address this issue, 170 members of the global financial community have joined forces in an effort to minimise the worldwide consequences of the date change and created the Global 2000

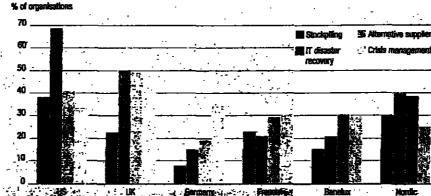
Co-ordinating Group. "It is particularly important to co-ordinate Y2K globally," says Mr Lawless. "The problem is not just about IT but involves the whole range of business issues such as self-assessment and contin-

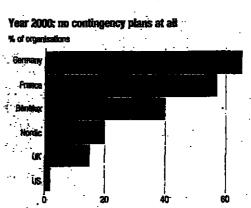
gency planning." The next six months will services industry, not only in completing its Y2K preparations but also in reassurplans will count for little if ing consumers and averting smaller institutions and less a panic that could be more damaging than the millen-nium "bomb" itself.

The rising cost of defusing the millennium

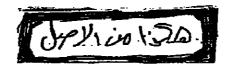








TO SURVIVE OUT HERE, THERE ARE ANY Sunscreen. Compass. Water. For application development, testing and management, four out of five of the world's COMPUWARE largest corporations rely on Compuware. People and software for business applications." What do you need most?



### ying into the unknown

Only 10 per cent of 'critical' failures caused by the Y2K problem are likely to last three days or more

Will the sky fall in on lem during the past year in experts think not

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The Case of

But while the worst prophecies of the doom merchants may not be realised, the consequences of the Y2K problem are difficult to predict as the level of preparation varies widely by company size, industry sector and

Much progress has been made in addressing the prob-

January 1, 2000? Most Y2K the more developed economies. IT organisations in the US, for example, have increased their spending on Y2K projects an average of six times over what was spent during 1997, according to Gartner Group, the US consultancy.

Cap Gemini, the European IT services company, has tracked the preparedness of organisations in Europe and

Year 2000 readiness by region and company size Percentage and total number of companies, Jan 1997.

|             | No changes<br>needed | Not yet<br>addreseed | Planned/in<br>progress | Completed | Tota            |
|-------------|----------------------|----------------------|------------------------|-----------|-----------------|
| <b>8</b> S  | -                    |                      | <del></del> .          |           | <del></del>     |
| Smell       | 15.6                 | 46.4                 | 31.3                   | 6.7 ·     | 418             |
| Medium      | 17.6                 | 25.4                 | 48.2                   | 8.8       | 193             |
| Large ·     | . 122                | 20,6                 | - 80.4                 | 6.9       | 467             |
| Total       | 14.5                 | 31.4                 | 46.9                   | 7.1       | 1,071           |
| Western E   | xobs                 |                      |                        |           | - <del></del> - |
| Small       | 23.0                 | 33.7                 | 34.9                   | 8,4       | 3,806           |
| Medium      | . 20.9               | 20.7                 | 48.3                   | 10,1      | L,1H            |
| Large       | 14.9                 | 11.7                 | 65.2                   | 8.2       | 1,740           |
| lotal .     | 20.5                 | 25.8                 | 45.1                   | . B.6     | 6,677           |
| Asia        |                      |                      |                        | •         |                 |
| Simeli      | 17.5                 | 53.A                 | 25,5                   | 3.2       | 1,057           |
| Medium      | 17.2                 | 42.8 ·               | 39.5                   | 6.5       | 430             |
| Large       | 15.4                 | 32.9                 | 41.6                   | 10,0      | 817             |
| Total       | 15.8                 | 44.1                 | 33.6                   | 6.3       | 2,304           |
| All regions |                      | , .                  |                        | :         |                 |
| Small       | 21 <i>A</i>          | 38.6                 | 32.8                   | 72        | 5,284           |
| Medium.     | 18.1                 | 26.7                 | 48.1                   | 9.1       | 1,738           |
| Large       | 14.6                 | 18.8                 | 58.1                   | 8.5       | 3,032           |
| Total       | 18.8                 | 30.5                 | 42.7                   | 7.9       | 18,054          |

the US through its Millenntum Index report. The latest version, published last month, puts the cost of fixing the millennium bug at \$858bn and says more than half, \$494bn, has already

But despite a recent acceleration in spending and greater awareness of the issue, the battle is far from

Even with all this progress, there are still serious risks for the US and throughout the world," says Lou Marcoccio, a Gartner analyst who recently testified to a Senate committee on the Y2K problem.

A recent Gartner report looks at the difference in Y2K preparethess in various countries. The most advanced are the US, Can-

ada the Netherlands, Belgium, Australia and Sweden. Laggards include eastern Europe, Russia, southeast Asia, much of South America and perhaps surprisingly, Japan. These all lag the US by more than 12

months.

Most of western Europe is six months behind the US, apart from Germany and France which lag by 12 months and eight to months respectively.

Israel is ahead of its neigh bours in the Middle Bast and laes the US by eight months. Although regions such as the Middle East and Russia are further behind than Germany and Japan. Gartner analysts expect the disrup tion to be greatest in the lat-

ter countries because of

their economies' greater

Levels of risk

|                            | ·           |          |
|----------------------------|-------------|----------|
|                            | Compliance  | Esposure |
| Finance                    | High `      | High     |
| Banidng                    | Mgh         | High     |
| ogurance .                 | i ligh      | High     |
| lår trærsport              | High        | High     |
| elecommunications          | Medium      | High     |
| Manufacturing              | Modifyest   | High     |
| Most government assyttes   | Median      | Fliph    |
| DEFEY                      | Modigra     | High     |
| hipping                    | Medicus     | Median   |
| Street government services | Medius-Low  | Righ     |
| leaffir care               | Medium-Low  | High     |
| letali trade               | Medium-Leur | High     |
| MEs                        | Medium-Low  | Mediga   |
| Agriculture                | Medium-Low, | Low      |
|                            |             |          |

The research was conducted over the summer when the Asian financial crisis loomed large. Many Asian economies have serious problems finding the financial resources to fix the Y2K problem.

"Enterprises with a high dependence on these countries for revenue will be affected economically." warms Gartner Group.

Some nations have managed to surge ahead of their neighbours in Y2K prepared ness. For example, Mexico is ahead of other Latin American countries because its government has taken the initiative in raising aware ness and promoting projects to reduce the risk.

Mexican financial institutions and government agencies are subject to stringent Y2K reporting requirements. Other countries with positiveleadership include Australia and the UK.

Within each country, there are wide variations between different companies, depending on their size. The Gartner survey of 15,000 compa nies in 87 countries revealed that 23 per cent had yet to start any Y2K effort and more than 80 per cent of these were small companies.

The survey also looked as the levels of preparedness in different industrial sectors. The banking, investment and insurance industries are most advanced, while health care, semiconductors, food processing and government agencies are furthest behind.

Crucial sectors such as telecoms, power, water and transport, which are heavily dependent on embedded systems, are barely ahead of

As the year changes to 2000, many people will prefer to remain eart

these laggards. This relative ranking by industry is also supported by Cap Gemini's

research. "It is no surprise that the finance sector is well ahead, but what is most concerning is the situation in health care and utilities," says Chris Webster, head of Y2K services at Cap Gemini.

The findings may seem to lend credibility to the "doomsday" predictions that aircraft could fall from the sky or power plants cease to function.

unlikely, simply because the airline industry is highly safety-conscious and planes will be grounded rather than expose passengers to unnecessary risk.

systems, but these activities will be sidelined by the

Gartner Group. period. "And airlines cannot

This is perhaps the most worrying prophecy, but Y2K

Besides, airlines may have little say in the matter. "Many airlines and air traffic control systems are working very hard to fix their plans ensure that any short-

Andy Kyte, a Y2K analyst at Some insurance companies are understood to be considering withdrawing cover for flights over the New Year

sure themselves," he adds. In the electricity industry. the problem may be more real as generators cannot shut down their plants on New Year's Eve and slowly bring them up again the next day, which is the advice experts give to industries

with systems that cannot be thoroughly tested. One generator's Y2K problem could rapidly become a headache for all the others as the unexpected drop in capacity could put a strain on the whole grid. But this is much the same situation as when a bad storm hits a

power grid and contingency

fall is met and power quickly restored if a blackout

Perhaps the biggest Y2K question mark hangs over the public sector which in Europe. for example accounts for 22 per cent of all IT spending.

"Most government agencies are significantly behind the US and extremely laggard overall," says Gartner

Group. Nevertheless, a few days delay in paying pensions or social security is unlikely to bring down a government and Gartner estimates that only 10 per cent of "mission critical" failures caused by the Y2K problem are likely

to last three days or more. The millennium problem must be taken seriously. But with suitable contingency planning, its effects on most people and businesses are likely to be limited to minor inconveniences rather than



### Cash battle for IT directors

As demand increases to update company networks, year 2000 budgets have the potential to become corporate battlefields

IT directors and chief information officers tackling the millennium computer date problem increasingly find themselves walking a budgetary tightrope.

On the one hand, they are being offered "whatever it takes" to fix the computer date problem and, for the first time, are bearing the phrase "are you sure that is enough?" when naming a cost for their Y2K projects.

Meanwhile, they are also facing strong boardroom pressure to make enhancements to other systems or functions within the corporate IT infrastructure to leverage" the high cost of Y2K repairs.

Thus, year 2000 budgets become a huge corporate battleground if IT departments are not completely scrupulous in their Y2K budget justifications. IT direcwhom are also faced with the euro-compliance issue can find themselves being asked to update entire networks instead of remaining sharply focussed on the year financial impact of fixing the

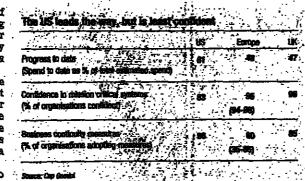
Mark Sokol, senior vice president of advanced techadvises extreme caution and suggests that IT directors and CIOs resist the pressure to use corporate Y2K projects to advance other agendas. CA is a leader in the year 2000 software sector testified before US congressional committees dealing

with the issue. . and make other system changes] when you are in there fixing dates," admits have to pick the applications that are the most critical to your jousiness and focus on fixing the problems that are most time critical - in this look at the a few examples to case? Y2K.

"And if you have to do and lo them in parallel with rities Exchange Commission multiple pipelines at the to state the costs of Y2K prosame time. In some ways, it jects is now making that cost more to do that, rundive." Bill Etherington, large corporations filed SEC issues. The SEC recently senior vice-president, conjeurs. He suggests that it not be until several the into the new millenm that companies will By find out the cost and ect of the year 2000 date

MPUWARE

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cult to budget and says that upgrade or modify all signifi-IBM is so concerned about cant systems which did not the issue that he plans to be correctly identify the year in his office on New Year's 2000. eve next year.

"I will be at work and have gained the potential to most of our people will be," its necessary modifications he says. "The difficult part with Y2K is that we have large, but the testing challenge is huge. My personal watershed event."

Moreover, estimates on the nology for US software giant - mate their costs accurately. Computer Associates. In November, a study by the that the total cost to major lems. western economies (Kurope the issue had increased from \$719bm to \$858bm

and Mr. Sokol himself has an estimated \$494bn has been spent, with \$238bn of that invested in the last six 2000 issues that might arise months alone. Cap Gemini "It is so tempting [to try further found that of the \$238bn spent in the last six months, around a fifth had people costs.

repairs will cost, A recent mulfiple applications, try requirement by the US Securesearch easier.

reports on their YZK costs. amended the Securities reported that it had assessed ers to file with the SEC and its computerised systems to their designated examining or Etherington admits necessary internal and exter dealer's process for preparthat this makes it very diffinal resources to replace, ing for the year 2000

McDonald's stated that it expected to complete most of and testing by the end of 1998 and to complete the never tested all the systems replacement of systems as in the world before. The well as the remaining moditechnical challenge is not fications and testing by the second quarter of 1999.

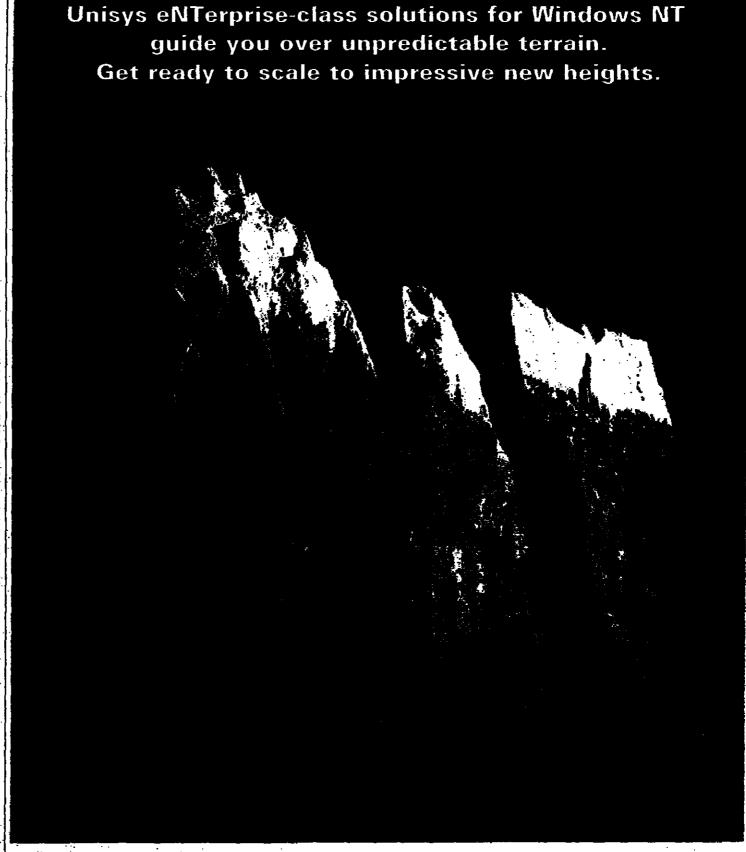
Desnite all of this work

opinion is that we will get and that fact that the comthrough it, but it will be a pany does not expect the year 2000 issue to "pose significant operational or financial problems" - McDonald's Y2K problem are on the says that in the unlikely increase, making it hard for event" that McDonald's or a senior IT executives to esti-significant number of its key suppliers are unable to resolve the issue in a timely Cap Gemini group estimated manner, there could be prob-

"Such matters could have a material impact on the company's results of operations," stated the com-It suggested that, so far, pany in its SEC report. "Contingency plans are being developed to address Year internally or within the supply chain."

McDonald's says it expects its total costs of dealing with gone on hardware, a fifth on the year 2000 issue for exist-Mr Sokol. "But you always software and the balance on ing systems to be less than \$30m, of which approxi-In terms of individual cormately \$22m was incurred porate planning, however, it through September 30, 1986. is probably more beluful to The costs include internal modification and testing gauge how much Y2K costs as well as costs associated with supply chain risk assessment and contingency planning

It will also soon be easier to see what some financial brokers and dealers have Last month, a number of spent on dealing with Y2K One of these was fast food . Exchange Act of 1934 to giant McDonald's, which require certain broker-dealers to file with the SEC and determine their ability to authorities a report prepared identify the year 2000 cor- by an independent public rectly and was devoting the accountant on the broker-



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### Compliance campaign requires a war room

'There are two ways to handle the year 2000 problem - take evasive action or prepare for the consequences of breakdown'

Respectable organisations no longer have disaster recovery strategies. They have "business

While this shift to accentuate the positive is a fine example of marketing double-speak, it has a special resonance as the end of the miliennium approaches and organisations start thinking about contingency plans.

indeed, many are no longer thinking about "if" they will have a problem in year 2000; they are thinking about "when" and what they need to do to remain in business in the next

The "when" is easy, the "what" less so. Business continuity planning is, therefore, seen as the response to this latest twist in the saga of the millennium

It embraces a range of disciplines from inventory auditing and configuration control to traditional disaster recovery and beefed-up help desk support. It will cost a lot of money, and it is unlikely that the cost is included in many year 2000 budgets.

Cap Gemini's Millennium index published in November shows, for example, that the US is more concerned about contingency

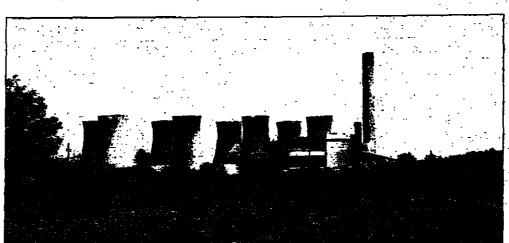
planning than Europe. It is shead of Europe in its conversion effort - it has spent 61 per cent of its average of 48 per cent in Europe.

But the US is the least confident about mission-critical systems and is the most advanced in putting continuity measures in place. Almost all US organisations, 98 per cept, have contingency plans in place compared with a European average of only 60 per cent, the United Kingdom leading on 85

per cent.
"In Europe, it has a lot to do
with how different countries see the problem," says Chris Webster, who heads the year 2000 service of Cap Gemini, the French IT services group.

"In France and Germany, for example, they view year 2000 as a straightforward technical fix, while in the UK they see it as having a wider impact.

"Organisations need contingency plans to make sure they can get through the changeover. We think it is impossible to test everything with all of the complexities and links in the supply chain. And even if you are ready, it does not mean your sumpliers and customers will be.



Power failures would have serious consequences: Europe lags behind the US in contingency planning for utilities

"There are two ways to handle it - take evasive action or prepare to manage the consequences of breakdown."

He goes on to recommend a programme of action, starting with the obvious. "There are avoidable risks, such as: Why fly? Even though you might not believe that all the aeroplane will fall out of the sky, why take the risk if you don't have to go

If this thinking is applied to

Utilities' Year 2000 hydoets: money spent so far

IT systems, you only run those things you absolutely have to. Some companies, for example, are closing down for their

year-end processing early, shutting down their systems to the bare minimum, then slowly bringing them up again as they Mr Webster says organisations need to concentrate on the

systems they must have running and set up what he calls a "war room" to handle unexpected

Greg Rice, a director and year

2000 expert at Tivoli Systems, IBM's network management subsidiary, also sees contingency planning in military terms.

Gartner [the IT consultancy group] estimates that 40 per cent of year 2000 conversion projects won't be finished on time so there are bound to be a lot of problems," he says.

The answer is to use a sort of three-part approach to work out

where they need to concentrate their efforts. Most companies can probably survive on a handful of tems, so these are the highest priority.

"Then it is a question of working out which ones would hurt them if they were not running, and so on down the

Mr Rice recommends three layers of defence. "You need to start with the equivalent of radar - to identify what systems are out there and details of devices

on the network. Then you need what I call 'walls around the city', a set of monitoring procedures backed up by a set of rules and remedies if the system hangs. Finally, you need the 'National Guard' - a help-desk, technical back-up and knowledge databases about fixes

and changes."
The technology to support all three layers is readily available at a price. Tivoli, for example, places emphasis on the importance of monitoring

systems operations to catch year 2000 errors and provides a range of systems management tools to do this

The "radar" early warning phase will require a system audit

applications to assess their inmortages Greenwich Mean Time's (GMT) Check 2000 is, for example, geared to carrying out the special checks required in a system audit for year 2000 compliance.

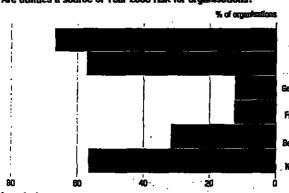
You have to start by finding out what there is out there," says David Marshall European managing director of CMT.

Organisations need to plan and carry out a risk assessment process on their systems before they start fixing or planning contingency. The exercise belos to identify the level of risk each element poses to the organisation

Help desks and on-call trouble-shooting teams form the last line of defence, or the war room. Agam, a range of technology is available to support. these functions and organisations should be preparing now.

All of this will cost money, of course, and it is alarming that the cost of contingency is likely to push the year 2000 bill up even higher. "Some of the budgets we've looked at seem to leave out a lot of testing costs and. although some have factored in the cost of contingency, many have not," says Cap Gemini's Mr

Are utilities a source of Year 2000 risk for organisations?



UTILITY SERVICES by Nuala Moran

### Telecoms at higher risk

As well as solving the year 2000 problem, utilities must also convince the public that basic services will not collapse

There are few people and ters to people is that the even fewer businesses which lights, phones, etc are workdo not rely on some sort of ing." utility service - which makes it especially important that the utilities do not ties, is that preparations are while the consequences of are privately-owned. not being year 2000-ready are likely to be far greater in this sector than elsewhere. the utilities have more work than most to reach compli-

Not only do utilities have large, and often aged, commercial systems, such as those for billing or operations management, but they must also fix extensive distribution and processing networks which are likely to contain many embedded

"The fact is that utilities have the year 2000 problem in spades," says Martin Caddick head of the year 2000 programme at DMR, a con-

"Whatever worries there may be about manufacturing companies, health services or central or local government, different standards apply to utilities and governments need to intervene to ensure continuity of ser-But according to a survey

of 1,680 organisations worldwide by Cap Gemini, the computer services company, for its Millennium Index, the utilities are spending less on year 2000 than other sectors.

"I am surprised that they appear to be spending less as a percentage of total IT spend than the overall average for the country or region." says Chris Webster, head of Cap Gemini's year 2000 programme.

ure, and so on."

The evidence from the survey, which covers 330 utilisuffer year 2000 failures. And more advanced in those that in an unmanned treatment "The US is furthest ahead.

while France, where a small back on." proportion of utilities are in the private sector, is further behind. My experience suggests that in the public sector, progress is slower because nobody owns the problem." The survey also indicates

that in France and Germany year 2000 task force. few organisations are preparing for the possibility of utility failures, with only 15 per cent of respondents seeing utilities as a source of

"I am astounded by the low level of awareness in Germany and France. I think that in these countries, year technical problem, not as a business issue." In the UK, the government-supported body, Action

2000 has brought the utilities together to co-ordinate millennium issues in the National Infrastructure Forum. Participants are encouraged to disclose information about year 2000 plans and possible problems. Action 2000 is also talking to its counterparts abroad in France, the Netherlands, Canada, Chile and South

Duncan Thomas, public confidence director at Action 2000 says: "Now the utilities are well into their Year 2000 projects, they need to talk to each other to cut through circular dependencies - a water company may be compliant, but unable to pump European problem and is not water if there is a power fail-

Mr Thomas says it is too early to say if the UK utilities will meet the deadline, but continuity plans, called regimes, will be set up to possible that a pump will fail plant, then there will be someone there to switch it

The area of greatest international interdependency is telecommunications. Here. the International Telecommunications Union in Geneva, which represents telephone operating companies worldwide, has set up a

Telecoms is probably the highest risk service," savs Mr Caddick. "If bank settlements stopped for a day as a result of telecoms failure, it would be a major disaster.

Mr Caddick has worked with several of the US telecoms operating companies on year 2000. Unlike other utilities, they do not have many date-dependent embedded systems in their networks. However, failures could occur because of problems arising in date-dependent software utilities which support the network.

### Problem areas

"I'm finding things are on track in terms of fixing the network management software. The problem is operations maintenance. Things that should happen every day, or every week won't - leading to creeping failures."

While he considers that Europe and the US will avoid big infrastructure failures. Mr Caddick thinks they could occur in regions where

being tackled.

"We are not talking about plane crashes or other disasters, but an infrastructure failure in south-east Asia could have an impact similar millennium operating to that caused by the current economic problems in the

The possibility of legal liability for failures is now starting to dominate utilities' year 2000 strategies.

In the US, for example, telcos and other utility companies are ordering independent reviews of their year 2000 projects to the US government's Independent Verification and Validation Standard. The aim is to show they have taken every reasonable measure to avoid failure if they do get sued.

utilities are planning independent audits to the British Standards Institution DISC PD2000 Definition of Year 2000 conformity require-The other issue for the

Similarly, in the UK, the

utilities is that it is not enough to be compliant .they have to be clearly seen to be compliant.

Unless there is public confidence in millennium compliance, there may be a rush to the cash dispensers to withdraw money or a simultaneous turning on of tans as people guard against a cut in water supplies.

To avoid this, utilities must inform the public about the year 2000 programmes they have carried out, warn of possible failures, and publicise contin-

Action 2000 is planning widespread publicity cam paigns with the utilities, leading manufacturers and food distributors throughout 1999. "We must make sure people know action has been year 2000 is seen as a US and taken," says Mr Thomas.



CASE STUDY

### Going for platinum and gold solutions

A millennium spring clean can refresh company assets and give their efficiency a useful boost, writes Nuala Moran

If the utilities have a special duty to keep essentia services flowing over the millennium, then United Utilities, which supplies not one service, but five, has particularly weighty year 2000 esponsibiline

Under the brand names of North West Water, Norweb. Energi and Norweb Communications, the company supplies water sewage, electricity, gas and to 2.8m customers in the north-west of England. In addition, it has several overseas joint ventures which it must also ensure are

millennium compliant. "This is a business problem and not an IT problem," says Norman Tooley, programme director for year 2000 at United Utilities.

"The individual businesses accountable for their own programmes, but overall responsibility rests with a programme board, which has director-level representation from across the group and reports directly to the chief

The programme currently involves more than 200 full-time staff, and will cost between £40m and £45m. It is being managed by Vertex Data Science, the outsourcing company which was formerly North West Water's in-house IT department.

Work began in March, 1997, but early in 1998, IBM was asked to review the programme. This led to a change in approach in which United Utilities acknowledged that it was impossible to fix everything, and instead organised the programme into evels of importance to ensure that the most business critical evsterns were fixed first.

"We assessed everything in terms of its level of criticality to the business, and then decided on priorities." says Mr Tooley, Systems were divided into four categories: platinum, Business critical platinum

systems will be compliant by the end of this month; gold systems, which are important but not critical, will be fixed by February, 1999; silver stems, where failure would have an impact, though not large enough to threaten the business will be fixed by April,

1999; and bronze systems deemed to have minimal impact will be left, butsufficient resources will be available to fix them if they Each of United Utilities

business units is carrying out a five-stage process to erisure

Any potential risks from key service suppliers and for industrial customers must be carefully assessed

compliance. This involves: □ Scoping to create an inventory of all assets that rely on date processing; ☐ Impact assessment to s the probability of each asset failing and its impact on the business;

 Planning and conversion, the detailed planning and analysis of the changes required to convert a syste Assets can either be replaced, changed or designated of low priority and fixed they fail; ☐ Testing, to ensure assets are compliant, and that remedial action has not impaired existing functionality: ☐ implementation, to bring the compliant systems into

The conversion, testing and implementation is being carried out by internal teams. to a repeatable and consist standard. Once assets are confirmed as year 2000 compliant they are put under "clean management", a set of disciplines that ensures they remain compilant.

The company has a number of overseas joint ventures, including projects in the Philippines, Australia and Argentina, which are also included in the overall year 2000 programme. 📌

"There is a perception that year 2000 is a European and US problem, and it has been more difficult to make it an ssue with joint venture partners. However, the nstances lof non-compliance are not quite as major because the assets are less complex, and a lot of them

The millennium problem does not end here for United Utilities. We also have to ess the risk to services provided by suppliers and we are working with them to ensure they will comply," says Mr Tooley. Key suppliers will be audited and in some cases contingency arrangements will be put in place to ensure continuity of service.

There is also the delicate task of checking that some of the larger industrial customers are compliant. For example, in waste water treatment, a significant pollution incident could be triggered if a manufacturing company discharged waste water that

was more poliuted than usual. A manufacturer could exceed discharge consents because of a failure of internal systems, or because of a power failure or water

shortage.

"Everyone is dependent on everyone else, and we have had lots of discussions and no einsmeiste cross-compliance, and of where we fit in the jigsaw." This raises the issue of legal liability. United Utilities has signed Piedge 2000, an undertaking that it will not take small businesses to court

for problems caused by year

2000 failures. Mr Tooley says the company is currently essing what the lecal

stance should be in the event of a major incident. United Utilities is staffing its ear 2000 project mainly with contractors, and says it has not cut back on IT

where in the business. But even if there is no opportunity cost, year 2000 is bound to be a distraction at a time of great change in the utilities

Following privatisation and the merger of North West Water and Norweb to create United Utilities, the company now faces the challenge of capitalising on deregulation in the electricity and gas supply

Each of these has soaked up significant IT resources. "In relation to other IT spending, year 2000 came at a reasonably good time. We had changes to IT systems demanded by mergers, deregulation and so on, well under way. The budget for year 2000 was extra, and has

not cut into money for other projects." There is a tendency to think of year 2000 spending as dead money: while a failure to spend could out companies out of business, the actual spending does not improve the business. But Mr Tooley believes that the complete an prompted by 2000 means that United Utilities systems now in much

better shape. "There is no doubt that it has refreshed the asset base, and made us realise that some assets were not as efficient as they should be." Despite his confidence that United Utilities will complete its year 2000 programme in time, however, Mr Tooley also acknowledges that there are some elements, especially embedded systems, which will

"We can't chase all the systems, so we can't rule out failures. Obviously something like electricity is fail safe. With something like water treatment plants, you can concentrate on fixing the main ones. If you fix 20 per cent of the assets that covers 80 per cent of the population. The alm is to fix enough, so we know we can meet demand. "We won't cover every last

not be fixed.

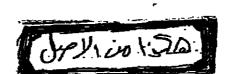
we are upgrading our existing contingency plans, and drawing up millennium emergency plans," This involves identifying where there may be failures and having staff on standby to deal with them. In 1999, the company is

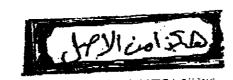
millennium problem, and so

planning a year 2000 communications campaign to tell its customers that systems are compliant. "We must ensure public

confidence in the continuity of services. The worst thing that could happen is if everyone decides to fill the bath with water at 10pm on December 31, 1999," says Mr Tooley.

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J Team 121

### System failures could be a matter of life and death

Keeping utilities and factories going at the millennium changeover will have many experts holding their breath

The year 2000 date change will be a serious and potentially dangerous test for embedded systems. Not only is it difficult to determine the extent of any problem, but it is also hard even to know if an embedded system

Embedded systems are huge number of systems, ranging from the mundane such as microwaves, video more serious and sophisticated such as telecommunications systems, power plants, medical equipment, chip factories.

There are probably 5bn embedded chips in use in the US. according to estimates by the President's Council on Year 2000 Conversion. Even if 2 per cent fail due to Y2K that means 100m chips

Embedded systems usually consist of a microprocessor with additional chips such as memory. The software is contained within what are called Read Only Memory

In addition, the software controlling embedded systems is written in low level programming languages that make them very difficult to examine. In the itself has to be replaced. There is no way to replace just the software in the chip. Most embedded systems that control systems such as elevators, traffic signals and home based products are unlikely to cause much last-

"Embedded systems in elevators, for example, might act erratically and there could be traffic problems because of traffic signal problems," says Jim Turley, embedded chip industry analyst at MicroDesign

"But these should not be life-threatening. For embedded systems in hospitals, or power plants the problem

could be worse. The problem is made more difficult because there is little available information on the Y2K vulnerability of edded systems. Add the problem of finding their location and the complex interactions of many interconnected embedded systems, and the problem apidly becomes huge.

"in some cases, an embedded system is not easily reachable or is impossible to reach," says Capers Jones, chief scientist of Artemis Management Systems of the US and an internationally respected Y2K expert.

"There are embedded systems in transatlantic telephone cables at the bottom of the sea. They are hundreds of feet underground in oil drilling rigs and they are

Electric power utilities make use of large numbers of embedded systems. If electric power grids fail, the Y2K problem in other computer tems will not be known about until much later, delaying recovery efforts.

And in the US, where winter temperatures in many states can fall to very low levels, a power failure lasting several days could easily kill many people, even if they have oil- or gas-fired heating systems because these require electric power to operate.

Earlier this year, the US Senate set up a special committee to investigate Y2K efforts by utilities and found that many of the largest lacked contingency plans and had not yet assessed the scope of the problem.

Utilities face a particularly serious challenge in that a failure in one part of the electric power grid can trig-

Chip production plants, known as fabs, are especially

vulnerable to embedded Chip fabs are among the most complex industrial pro-

duction systems, costing as much as \$2bn to build. Tens of thousands of embedded systems control the various stages of chip production, the clean room environment. the safety systems that hancals, the ventilation and heating systems and the telecommunications and network infrastructure. Gartner Group, the US

market research group, predicts that the world-wide chip industry faces potentially serious disruptions to Y2K. About 90 per cent of equipment used in chip fabs have Y2K prob-

It warns that most chip panies have a "considerable attitude of denial" and have vet to take mea on Y2K.

and development consortium, has been warning chip makers that they face a nightmare problem in identifying Y2K bugs in their production systems Sematech has listed more

than 8,200 production systems that have embedded systems with possible Y2K problems, and so far fewer than 900 fixes for these systems have been made available "We have found that

newer chip production systems carry a greater risk of Y2K problems because they contain more software." savs Harvey Wohlwend, Y2K program manager at Sema-

"Older production systems don't rely on date fields In terms of finding embedded systems. Mr Wohlwend uses the analogy of replacing

light bulbs in a house. The main ones are easy to spot and reach, but there are light bulbs in stereo systems . ger failures in other parts of and other electronic equiption to handle that demand."

ment in places where you might not expect to find

Such a problem pales in comparison with locating all the embedded systems in today's modern manufactur-

Sematech has asked more than 1,400 suppliers of chip production systems to have solutions available by the end of this year. Mr Wohlwend says that not all supliers will meet this dead line, and some have told Sematech that they will not be ready until some time calls unacceptable

Intel, the world's largest chin manufacturer, says it is well aware of the chip fab blem and is on schedule in fixing potential problems. Texas Instruments says it has analysed all of the systems in use in its fabs uled to be fixed by June

The World Semiconductor Association has formed a working group to come up with a list of proposals for chip producers in Europe, Japan and South Korea, But this effort may be too little and too late to avoid prob-

turers is that chang ing the software in their embedded systems can introduce new bugs requiring rigorous testing. And sharing information between chip makers is difficult, becaus each fine tunes its own pro duction processes and has closely guarded secrets which it does not want to share with competitors.

"With embedded systems if you find there is a Y2K problem you need to order a replacement board from the manufacturer," says Ed Yourdon, chairman of the Cutter Consortium, a US IT consultancy, and a leading Y2K expert.

"In many cases, companies are getting delivery dates of mid-1999 because they haven't geared un produc-



### No magic bullet to save the laggards

Only by searching rigorously through every system can potential problems be eliminated, reports Rod Newing

Each of Intel's 18 main

factories around the world

controllers for fire, security

and safety systems. It has looked at 35,000 embedded chips, of which 100-200 were

critical Of these, 80 per cent

were already capable, leaving

a very small number to repair

intel still has a huge and

intense focus on finishing its

remediation and deployment

ready by the end of the first

guarter of 1999. It will then

continue integrated systems

It is also looking at the

testing through the rest of the

potential problems connected

with the 99th day of 1999 and

September 9. The company is

looking at contingency plans

control. It is using scenario

planning, from simple issues to nightmare disasters, to see

what it can do about them.

cargo-handling systems are

establish staging inventories

lot." savs Mr Burns, "but in

others there is not much you

can do, such as power

"In some cases, you can do a

Airports, for example, are

for problems that are

very complex. If their

information systems or

and is on schedule to be

manufacturing equipmen

vell as thousands of

contains a host of

Intel Corporation, the world's largest manufacturer of computer processors, has scovered that there are no nagic fixes to the year 2000

"It is anly solved by good, hard rigorous work and paying attention to detail," says Louis Burns, Intel's chief information

Following a series of smaller initiatives, intel established a formal Year 2000 Program Office at the end of 1996. The project was divided into four areas: the supply chain infrastructure for materials and equipment; manufacturing, which accounted for three-quarters of the effort: other information systems:

and products. The project started with a basic search to understand what systems the US company had in place. An inventory was drawn up, the magnitude of the problem stablished and the different

resources were allocated. "As we got into it, we red that there was nothing particularly unique about a year 2000 project, just a lot of discovery and a lot of

"It was a broad project, but not deep in terms of complexity. However, we didn't envisage the magnitude of the effort when we started. We were well into the project before we really understood even the magnitude of the inventory we had to go

The estimated final cost of the project is up to \$250m.



A handful of chips: Intel has checked 35,000 embedded sy

This covers full- and part-time internal staff and charges for of equipment.

There was a very small amount of extern consultancy support at the beginning to help understand the problem and set up the pject. The project holds monthly reviews with the the specifics of the year 2000

#### Mobilisation

There is also a quarterly two-hour review with the board of directors and a short m-date in the intervening months. "The whole compan is mobilised and focused and the necessary resources around the world are being applied," says Mr. Burns.

priority and if a surprise comes, rescurces are 'swarmed' and there are no debates about additional funding."

Intel encountered three main problems. The first was its inability to disclose information through fear of

Now that the US has assed a vear 2000 disclosi izw - giving (T companies immunity from prosecution over any information they

make available on their

millennium readiness - Mr

Burns is gled he can start talking to other companie and that the work can be done by technical people. rand-related

The second problem was anderstanding global infrastructure issues, such a nower, water and sewers. The ast was detting the work done around the world, those either insisting there vas no problem or arguing that it was insoluble.

"As our industry operates on a world-wide basis, we hope that other companies around the world will take the same level of intensity." says Mr. Burns, "The vast majority of US companies are well along, but Europe is lagging and Asia is way behind the rest of the world," he says. "Our biggest worry is how to ensure that the world at large is ready, when many companies and governments have started too late and are

now trying to close the gap." There is still plenty of work to be done, but Mr Burns is that intel is in an excellent position to deal with year 2000.

"Many other companies are treading the same path, but we would like to see still more companies being pro-active about the problem to ensure that global infrastructure issues are adequately

A GUIDE TO MILLENNIUM HELP

### Companies need to gear up their preparations

Severe dangers persist in the UK public and small business sectors, but help is at hand, writes Joia Shillingford

Although British orgissue, there is still much to so far. be done, warns Chris Webster, head of year 2000 services at Cap Gemini, the French computer services company. He expects "the race to go all the way down

to the wire". But he adds ominously: 'In the past six months than 250 employees. countries such as France and Germany have accelerated their efforts (to fix the year 2000 problem] while the UK has simply not made the same rapid progress despite repeated calls to action from the government."

"There remain some evere dangers, especially in the public and small business sectors."

However, the latest Cap Gemini Millennium Index designed to alert companies, organisations and governments to the impact of the date change problem, does show evidence that UK organisations have reassessed the amount of work

Realising that they will not fix all their systems, they have begun to focus on business continuity planning. The latest index also confirms fears that the UK small business sector is a millennium under-achiever.

One in three small and medium enterprises have yet to start work, evidence that the small business sector is still not treating the issue with sufficient urgency. The good news for compa-

nies which still have work to the Electronic Industries do is that there are many sources of online and off-line help available on the year 2000 problem. On the facing page is an international list of Y2K-related web sites. while a selection of UKbased groups appears below. ☐ Action 2000. This gov-

ernment task force to help companies fix the millennium bug says its web site and action line have taken many thousands of calls and visits from businesses seeking practical, plain English CSSA's web site at advice on how to go about tackling the bug. The web site is at www.bug2000.co.uk tacted at 0171 396 6700. and the action line number

up Pledge 2000 to encourage orative, as opposed to liti-

gious, approach to resolving anisations have now com- the bug. Action 2000 says pleted just about half their hundreds of companies of all work on the millennium sizes and sectors have signed

☐ Bug Buster, Bug Buster Assess and Manage courses have been designed by the British government to help businesses identify and solve potential problems on their own systems. They are free to companies with fewer

Other free courses are then available, if necessary to provide more in-depth assistance with specific problems. All the courses also take a long-term view to help companies improve their IT provision on many levels for the future.

The training hotline number for companies to phone for the free Bug Buster courses is 0845 609 1100 (local

☐ Business Link This national network of local partnerships, supported by the Department of Trade and Industry, provides a range of subsidised advisory and information services, including year 2000 help, to small and medium-sized businesses. Business Link Lon-

don is on 07000 40 50 60. CSSA. The Computing diagnostic tool, Comply2K, Services and Software Association is largely run for IT suppliers. But it has also published some advice for computer users, says John Corden, the CSSA's year 2000 spokesman and millennium director of Cyrano, the testing tool company.

This includes a guide, produced in conjunction with Association, on how people should go about testing their CSSA has also done a lot

of work with the British

Standards Institution to

make its year 2000 compliance standard more pragmatic - to allow, for example, a year 2000 solution called "date windowing". The CSSA has published a guide to interpreting the BSI standard. Both guides are free and available on the

tively, the CSSA can be con-Computer Weekly, The The task force has also set a dedicated year 2000 news



Robin Quenier of Taskforce 2000: stressing the need for foresight and helping hard-pressed companies with contingency planning

riences."

database of compliance software or download a 90-min- 'club' acts partly as a clearute overview of the main issues and problems affecting management and technical staff.

In addition, there is a free question and answer forum that lets users question specialists such as Karl Feilder, founder of millennium tool Time; and Simon Halberstam and Ellis. The site is at compliant. www.computerweekly.co.uk.

National Computing Centre. This has a computer and gives advice on year 2000 issues. Its millennium helpline is on 0700 2000 999.

☐ Taskforce 2000. This campaigning body, helps to solve year 2000 problems indirectly by raising awareness of the issues. Robin Guenier and his directors speak several times a week at conferences and he also helps company boards of directors to develop contingency plans.

Taskforce 2000 charges for this service and the fees are fed back into its funds. "Contingency planning is becoming almost the most important subject," Mr Guenier says. "But it is difficult, because you can't do it until you define the contingency."

Contingency planning is becoming a global concern. Mr Guenier and a representative from the World Bank companies publish informs recently spoke on the sub- tion about the level of comwww.CSSA.co.uk. Alterna- ject at a Global Year 2000 summit

UK magazine's web site has including 20 big UK companies, which provide funds in section, including a guide to return for regular briefings, suppliers and products. It is press clippings and seminars also possible to interrogate a on the Year 2000.

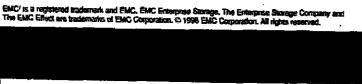
ing house where I can put people together who can learn from each other's expe-

Taskforce 2000 is contactable on 0171 562 7650 and its Internet web site is at www.Taskforce2000.co.uk. Testing tools, Many company, Greenwich Mean testing tools have been developed to check whether

stam, of law firm Halber. IT systems are year 2000 The CSSA's Mr Corden says: "There are three or four different classes of tools, including tools that can help people find out . What is wrong with a syltem and fix it, such as Vissoft and Piercom; testing tiols, such as those from Cyano, Mercury Interactive and Compuware, which findlout what a system does like Timelord; and tools hat scan everything on a system and produce a report, sich as tools from Greenwich

Mean Time.' ☐ Year2000.com. 2000 newsgroup run by Pele de Jager, the millennique "bomb" guru, can be fould at www.year2000.com. T site also has the details of useful Internet newsgrou where IT managers and ot ers discuss year 2000 issue and their experiences

tackling the problem. □ Other advice. Many pliance of their products or the Internet Industry associ Taskforce 2000 also has a ations for different market kind of stakeholder club, sectors and chambers of commerce also tend to provide millennium advice or information sharing programmes. See also web site listing on facing page.



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#### INFORMATION SOURCES

SDAY DICTMRERS

### Year 2000-related web sites

Among the many web sites related to the year 2000 problem are the following: Global 2000 Co-ordinating Committee: http://www.globai2k.com/ ☐ World Bank web site: http://

www.vorldbank.org/y2k/ ☐ Wirld IT and Services Alliance: http:/www.itaa.org/witsa.htm ☐ European Commission Y2K and the euro site: http://www.ispo.cec.be/

Us Federal Reserve Board Y2K site: http://www.bog.frb.fed\_us/v2k/ D Fideral Reserve Bank of New York Y2Ksite: http://www.ny.frb.org/bankinfo/ v2k/ndex.html

1 IS President's Council on Year 2000 Corrersion: http://www. y2k.gov/java/ indochtm Dieman Federal Government: http://

www.lid.de/jahr2000/bericht2000/ indx.htmi Trench Ministry of Economic Affairs, Fignce and Industry: http://

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ww.industrie.gouv.tr/ ☐Bank for International Settlements htp://www.bis.org/ongoing/ E Britain's Department of Trade and Idustry, Action 2000: http://

IJ UK Cabinet Office Year 2000 team: http://www.open.gov.uk/year2000 ☐ Tasidorce 2000 in the UK: http:// www.Tasidorce2000.co.uk

Ci OECD website: http://www.oecd.org/ puma/focus/current/timebornip.htm ☐ OECD year 2000 national links web page: http://www.oecd.org/dsti/sti/ index.htm

☐ Japan: Initiatives of the Prime Minister's Office: http://www.kantei.ho.jp ☐ Switzerland's Y2K Millermium Site: http://www.millennium.ch ☐ Netherlands Millennium Platform: http://www.mp2000.nl/millen/Millen.nsf/

☐ New Zealand's Y2K Task Force: http:/ /www.y2k.govt.nz/ Thalian authority for IT in the public sector: http://www.aipa.it/attivita/ anno2000[11/index.asp

☐ Ireland's Civil Service, Finance Dept: http://www.irlgov.le/finance/y2k.htm ☐ Australian Government: http:// www.www.ogit.gov.au/year2000/ vr2000.html ☐ Belgium's Miliennium Foreum 2000: http://www.y2000.fgov.be/index.htm

☐ Canadian Federal Government: http://

www.info2000.gc.ca D Portugal's instituto de informatica: http://www.inst-informatica.ot/ ☐ Spain's 'Map 2000': http://

www.map.es/csi/2000.htm ☐ Mexico's Proyecto Ano 2000: http:// www.secodam.gob.mx/proy2000/ Swedish Millennium Commission: http://www.2000-delegation.govse/

☐ International Air Transport Association (IATA): http://www.144.194.16.11/y2k/

enalish/index.htm

☐ International Telecoms Union (ITU): http://www.itu.int/y2k/ ☐ Gartner Group web site: http:// www.garmer.com/public/static/home/ home.html

□ International Data Corporation website: http://www.idc.com/ SAP, the software company: http:// w.sap.com/y2000/index.htm UK-based groups and web sites are also listed on the facing page.

Michael Wiltshire

#### **FILLENNIUM STOCKS** by Geoffrey Nairn

### High-flyers come down to earth with a bump

Wall Street had big hopes for Y2K-related shares but the excitement has gone and prices have dropped sharply as the moment of truth approaches

The year 2000 has come and financial institutions saw it as recruitment agencies. gone on Wall Street - at as a golden investment least as an investment opportunity. theme - and it has left inves-

tors with a big hangover. Software companies whose share prices soared in 1997 said JP Morgan, the US in anticipation of a boom in investment bank, in a 1996 Y2K work, have seen market research note on Y2K stocks. sentiment rapidly reverse Corporations and governand prices collapse when ment agencies would have to they failed to meet expecta-

Micro Focus is the latest in a growing line of Y2K-related stocks to disappoint. tools company came down to forecasted worldwide earth with a bump last systems integration services

Martin Waters, the chief dicted JP Morgan. executive, announced "lower than anticipated demand" for year 2000-related products and services in its key share price fell to the lèvel of

When the Y2K issue first started to receive wide coverage two or three years ago,

**Business continuity** 

What measures are organ

Failure of essential services

Failure of networks/mails

Failure of IT systems

"The problem is real and huge [and] the time for investors to buy is now," spend \$200bn, one of the more conservative estimates,

to fix the problem. Unlike other IT expenditure, the deadline could not be pushed After seeing its share price back. "The year 2000 probtreble in 1997, the software lem could account for all the revenue through 2000," pre-It drew up a list of 30 or so

stocks that it predicted would benefit most from year 2000 work and divided broad categories: contract programming companies such as Amdahl and Data Dimensions, specialist Y2K tools suppliers such as Micro

(学)发):

57

67 -

Europe (%)

Focus and Viasoft, traditional large systems integrators such as EDS or Computer Sciences, and a fourth

However, few of JP Morgan's selections have lived up to expectations and a heavy exposure to Y2K work has become a mixed blessing for these companies as investors worry that sales of Y2K products and services could soon dry up.

Viasoft was traditionally seen as one of the strongest suppliers as half its revenues come from Y2K work. "Y2K revenue is not going to fall off anytime soon," says Steven Whiteman. Viasoft chairman and chief execuannounced a quarterly loss and plans to lay off 10 per

wide for Viasoft's Y2K software tools had a negative impact on first quarter results," says Mr Whiteman. In mid-1997, at the height of the Y2K boom on Wall Street, Viasoft stock reached

\$65. Last month the price collapsed to \$4. Data Dimensions is similar in size to Viasoft - annual revenues for both are running at \$100m - and was also promoted as a pure play on the Y2K problem. An investment group led by

George Soros, the billionaire investor, was one of the first to spot the company's potential and its share price soared by 400 per cent in Data Dimensions' share price fell during early 1998 along with many of its competitors, but it has recently

recovered following a set of exceeded analysts' estimates. "Our year 2000 business

continues to grow," says Larry Martin, the company's president and chief execu-

A few other Y2K plays are also doing well, including Tava Technologies, which recently announced record. orders for its Y2K products and services, and Compuware the large US software

hide quality

BLUE CHIP CLEAN

The wide difference in performance of the various Y2K stocks illustrates one of the biggest problems in looking set of companies destined to at the sector from an inves benefit in other ways, such tor's perspective. The market is far from homogeneous and organisations have adopted widely different strategies, timetables and technologies to fix the mil-

lennium bug. Some large organisations have handed responsibility for Y2K to their IT outsourcing partners and expected them to fix the problem within an existing contractual relationship, says Margaret Joachim, European head of Y2K services for outsourcing giant EDS.

An unexpectedly large number of companies have rive. But in October, it used existing IT staff to perform some or all of their Y2K project. The Y2K issue has thus not produced the expected boom for outsour-

Vendors of Y2K software "Weaker- demand and tools should fare better, with to fix the problem internally, but competition in the tools sector has increased dramatically since 1996 and the needs of the market have

also changed. The millennium date problem was originally thought to affect mainly the older mainframe programs written in the Cobol language. But the Cobol tools market has now peaked and tools vendors are having to look elsewhere for new revenues.

"Large organisations are pretty far down the road to solving the problem in their mainframe programs," says Mr Whiteman

Viasoft rose to prominence mainly because of its Cobol Y2K tools. Ironically, its present financial difficulties are due not so much to problems in this traditional business as to cost overruns on a quarterly results that new range of tools it developed to find the Y2K bug in desktop PCs a market the Y2K industry has largely ignored.
"The desktop is the big-

gest area where companies still need to look for Y2K problems and the new oppor tunities for us are here," Mr Whiteman says.

Viasoft is also looking beyond 2000 and is promo ting the use of its tools to develop new applications by "modernising" and reusing code from existing "legacy" programs instead of developing them from scratch, a costly and time-consuming

Mr Whiteman says this represents the new face of Viasoft and, unlike Y2K, this work is not going to dry up suddenly. His only problem is to convince a disillusioned

"Investors were looking for a simple Y2K investment story but there never was



Themes for 1999

For details of the main themes to be covered by the FT-IT Review next year, see list on page 22 of this issue.



KEY BUSINESS ISSUES DISCLOSURE

### Investors worried by companies' silence

Regulators are trying to force more companies to be open about their Y2K preparations, writes George Black

Boards of directors are coming under increasing pressure to detail their companies' responses to the year 2000 problem.

This follows a strongly worded pronouncement by the Securities and Exchange Commission, the US stock market regulator, in the summer.

Arthur Levitt, the SEC's chairman, wrote to more than 9,000 companies trading on the New York Stock Exchange and Nasdag - including some eading European companies - insisting that they provide "thorough, meaningful disclosure on this topic' within the next quarter. He

threatened legal action if they This demand went further than the request by the London stock exchange in

March that listed companies should make a statement on the issue by the end of the

The SEC was worried that companies were evading the issue and not providing the information to which investors have a right. Many British companies

have made only scant reference to the problem in their annual and interim reports, while some have not mentioned it at all. In so doing they have also been ignoring the instruction of the Accounting Standards Board's Urgent Issues Task Force, which asked companies to make a full statement as early

per cent of UK companies filing reports referred to the estimated the cost of fixing it. says Graeme Farmer. sistant editor at Company Reporting in Scotland, which

monitors annual reports. "Very few companies give much detail and they are very optimistic in their brief statements," says Mr Farmer. Costs which companies say

will be involved in fixing it range from nothing to  $\bar{\Sigma}100m$ . Few companies have discussed what impact these costs might have on their profit figures and few describe contingency plans for dealing with systems failures.

Some say that, although their own compliance programmes are in hand, they cannot youch for their suppliers. Others say they seeking guarantees from

It is suspected that many because of concern that any

liable and alarm shareholders counteract such secrecy the US Congress voted for a new law giving legal protection to

bug information. The intervention of the SEC raises the stakes. Companies are being forced to give a explanation of their policies for tackling the bug in order to retain the confidence of investors and ultimately in order to continue trading publicly.

Recently the SEC fined 37 brokerages for failing to report their progress on the issue.

"There are going to be companies that do not provide full disclosure fairly soon." says Andrew Rigby partner in Tarlo Lyons, the London law firm which specialises in the subject

SEC rules require companies to be open about matters that affect liquidity their capital resources and their trading operations as well as any matters which could have a material financial impact on their business.

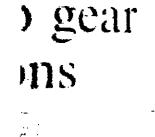
It has identified the year 2000 bug as a matter which could have such a material financial impact. Some companies have

opted not to mention the issue in their reports on the grounds that they consider it financial impact on them.

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### Millennium failures could lead to claims bonanza

Lawyers can expect plenty of business, but companies should count the cost of suing their IT systems suppliers

fixed, according to Berwin

Ian Lowe, a partner, says. "Trying to get the supplier to pay for year 2000 work an you take your eye off the ball instead of getting the work done on time. At argue against that." this stage, you should be co-

with the policy of the UK are not routinely upgraded government's Action 2000 initiative to help companies long life. Some people fix the so-called 'Y2K' problem. It is encouraging com- tion industry - see 1995 as a panies to sign a no-litigation cut-off point and are saying pledge and many, including Tesco, the supermarket 1995 should be Y2K-complichain, have done so.

Signing the pledge does not totally rule out later liti-gation, says Mr Lowe. "You in the UK. "There have been should make it clear to suppliers, by sending some sort of letter, that you are keeping your options open so ket could not read cards that that if, come 2000, you need to make a claim, you can

But the issue of going to law is finely balanced. It really comes down to cost. If legal pressure on the sup- getting a solution from a Law firms are expecting liti-

pentium•

Sending in the lawyers may the original supply connot be the best way of get- tract," adds Mr Lowe. "But it ting your year 2000 problems is often not clear-cut whether there is any obliga-Leighton, the City of London tion on the part of the supplier. There are often exclusion clauses. Or the supplier will say 'we produce regular upgrades and year 2000 was always meant to be one of those upgrades'. It's hard to

The issue of embedded microprocessors is poten-Mr Lowe's advice tallies tially more fraught. These and are intended to have a especially in the constructhat anything bought after

To date, there has not a handful of cases in the US, including one where credit card readers in a supermarexpired after the year 2000. according to David Lawler of forensic accountants Buchler Phillips Lindquist Avey.

"Either Europeans are the expense of fixing year don't want to divert the actions critical to compli-2000 problems is relatively resources of their supplier," small, this will probably be he says. "Or they have cheaper than the cost of looked at the lead times for large, it's worth looking at stick with the existing one."

What exactly is

IBM's {Position}

on Windows NT servers?

UK companies are taking no recourse to the law. Some bave drafted special contracts for their year 2000 contractors. For example, one supermarket chain has a clients' offices to deal with contract with a built-in film penalty (called a liability cap) which the computer services company it is using will have to pay if it defects to another client.

More litigation is likely in 2000 but it is hard to estimate how much. Nor will the lawsuits necessarily start immediately. "I see a period of grey, malaise at the beginning of the year 2000, while systems fail and people can't get into their offices," says Richard Lister. a Berwin Leighton partner

"There'll be three to six months of irritations in 2000, while people work out who they're going to sue," he pre-dicts. "And there could be a flurry of claims just before the end of 1999, while people who haven't been able to fix their Y2K problems try the commercial litigation route. "We are working with

some companies to establish a series of trigger points being pragmatic, or they if a supplier fails to fulfill In the US, the year 2000 legal climate is different.

the next three years.

US law firms are sending teams of lawyers in to their the Y2K paper mountain from suppliers, asking them whether they are year 2000 compliant. "They would only be doing that if they [the clients] were intending to sue later," comments Mr Lowe.

Some lawyers believe the level of paper-chasing on both sides of the Atlantic is excessive. Essentially, a blue chip company will send a letter containing binding legal clauses to 10,000 suppliers. But skilful suppliers can still reply in a way that shows they are responding to customers, but which falls short of promising anything.

Year 2000 warranties supplied with software and hardware do promise compliance. But even here, there can be a problem if products are supplied from the US.

Europe, the BSI [British Standards Institution] Y2K directors will be covered by conformity document has become the industry standard," says Mr Lister. "But when a European company is dealing with a big US softto move them away from their head office policy."

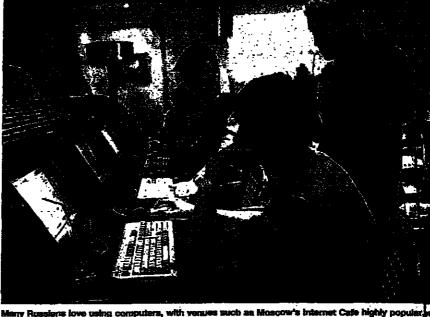
If all else fails, there is still litigation or, in some cases, insurance. Insurers can't predict what will happlier. "If the costs are very rival supplier and decided to gation in the trillions of dol- are, however, wary of com- pen." They are not the only lars because of the year 2000. mitting themselves to paying

That does not mean that They say courtrooms in Los out if products are not year IK companies are taking no Angeles are booked up for 2000 compliant. But they may pay up if a company which has taken reasonable steps to ensure compliance still loses money due to business interruption stemming

> contents policies will not pay out if home appliances do not work, but may pay for consequential damage if for example, a washing machine floods the home due to the Y2K problem. Travel insurers, too, would be reluctant to pay if, say, a plane could not leave the airport because of a year 2000 problem, but would still have to pay up if the aircraft

Mr Lawler, whose firm investigates and advises on business interruption insurance claims, expects most of the claims over the year 2000 to be for loss of profits. "There could also be cases of shareholders suing directors for failing to observe their "In the UK and parts of duties as directors in respect of the year 2000. But some directors' and officers' liability insurance if they can demonstrate that they have taken reasonable steps."

"In the US, a number of businesses have tried to sue their suppliers in advance. But so far, many judges have refused to rule in advance of the year 2000, because they



ment has done little to prepare for the problems of the year 2000



**COMPLIANCY CASE STUDY** 

### Why a tough US customer made early moves

Guaranteeing continuity of business will be one remediation with the next the primary focus, reports Mark Vernon

Since its launch in 1971, the US Nasdag stock exchange has expanded dramatically.

now processing nearly 1.5bn shares a day, or 60,000 a This equates to 1,200. messages per day - none of

which must be lost, corrupted or delayed - and thus demands exacting performance and reliability from the exchange's nformation technology

"We have had to scale almost vertically," says John Hickey, Nasdaq's chief technology officer. "Above all, the technology needs to be there and be responsive. "The markets come up

every day, if there is a problem, we wake up the Some 450 people work in the Connecticut data centre.

the heart of the IT nervous system based predominantly on Unisys equipment. Nasdaq is a tough customer, not only because of

market expectations. In

August, 1994, it suffered the embarrassment of a crash Even though systems were back up in 22 minutes, the collapse led to bad publicity

makes Mr Hickey shudder. The company became aware of the year 2000 problem more than six years ago, information about the throughout the financial services industry in a culture used to knowledge sharing on

matters of universal impact. The formal Nasdaq project self began early in 1996 with the establishment of a management office. "The goal was to

wareness of the problem as well as how to manage the ilar, executive

the Nasdaq parent company.
"We started then so that we could also be responsive to points out that NASD also

incorporates an arm that plays a regulatory role. Senior executive

sponsorship was established from the start. This ensured that the year 2000 Issue was visible throughout the company and that awaren remained high.

Other mechanisms were put n place to inform the enterprise, notably a web site, clearly linked to the corporate intranet, from which project progress reports could be gained as well as more general Information for

xternal consumption. Two distinct methodologies onerated within NASD as a whole. In the Nasdag division. the project was dealt with as part of the usual IT schedule which includes requier software upgrades and

system tests. This allowed costs to be carried within releases as well as building excellent internal knowledge of the issue,

Extra teams

in the regulatory division and within the parent company, additional teams were set up involving third party partners with internal staff dedicated to

The problem was mitigated slightly for Nasdaq compared with others involved in the market, since certain date Issues are not so complex for a service which closes every day. A portfolio manager, for ample, has a more difficult

"However, we can recall virtually everything that happens on Nasdag from our archive, and this requires date integrity to be secured across the millennium." says Mr.

The project comprised a number of steps, beginning size of the task and the best ways to approach it. "Impact analysis looked inside the code, though we found very few tools which were relevant been developed for the Unisys anvironment," he says.

Details of the methodology

included establishing test

parameters, processes to link

"We also had to

communicate with members and attend to our regulatory Bailar. "This not only includes a hotline, but outbound calling to assess members' year 2000 status and that of their partners."

definitions of certification and

governance, including regular

recertification and

reviews at poard level.

in fact, at the time of writing, this work is absorbing more project time than attending to code itself.

Testing was a crucial element with certification operating at three levels, First came the testing of individual applications alone, then the testing of whole environments. including databases and networks. It was only at this stage that compliance could be secured.

A third level of testing proved vital, too: the recertification of systems to ensure that reinfection had not

"About three months ago, we received a shipment of PCs which our retesting procedure found was not compliant in spite of labels declaring the contrary on the boxes," says Mr Bailar.

Recertification forms part of the continuency planni: From October, 1999, there will be a freeze on new implementations which will also free resources. Contingency plans include assistance for members, "We want to help if a firm has a problem, too, to ensure the market stays up, so we are training in-house staff to go

happen," he says. Guaranteeing continuity of business will, in fact, be the primary focus for 1999. "This is an enormous amount of work which has to be relyanised around the world. It is a truty global effort," says

"Rather like the space nas undoubtedly infused a significant amount of new investment in IT and vitnessed unprecedente "Its effects, beyond the bug, will be felt long into the

**DISCLOSURE** 

### Investors demand more than bland answers

From previous page:

"This will no longer wash," says Mr Rigiby. The prospect is that stock

exchange authorities around the world will follow the SEC and increasingly Insist that The SEC wants companies

to state how much money and time they are spending on fixing the bug, how far they have progressed and when failures are and what effect, if any, is expected on their trading position. Mr Levitt's letter made the

authorities in some other countries, including the UK, look again at their position on extracting statements.

The British government and the London Stock Exchange have been very concerned

about the blandness of

more they can do to induce

"People want to know how seriously this is being taken by these organisations and what is being done about their Cook, a director of the

Accounting Standards Board. As well as stock market authorities, regulators for intervene to add to the pressure on company directors.

Financial Services Authority has said it will call for an auditor's report if it is concerned about a financia institution's readiness. The crucial period could begin in December, when

For example, the UK's

many companies' interim reports are due, investment rnalysts will be scrutinising the statements of boards on their strategy and will be posing questions at annual

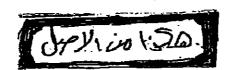
be surprised by profits warnings being issued du to higher year 2000 conver

if investors do not rec replies which put them at ease, they could start to s their shares. This could fold

selling.
Mr Rigby speculates the companies fail to quell the worries and selling accelerates, the stock exchange could ultimately forced to suspend trading their shares until the situr s sorted out.

By May, when there will a large number of full year reports, investors will want hear that the problems are : in the past.

it seems likely that through next year investors will increasingly make decisions taking into account who they



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BANKING CASE STUDY CARIVERONA OF ITALY

### Integration with other groups presents a big challenge

The imminent introduction of the euro and problems associated with the millennium take pride of place, writes Geoffrey Naim

alian banks pioneered the development of modern banking in centuries past. But their IT managers today have

little time for reminiscing. They are too busy adapting their systems to handle the mminent arrival of the euro. ne wave of mergers in the sector and, of course, the

millennium "bomb". Claudio Barl, deputy IT manager for Carlverona, a mid-sized bank based in the northern city of Verona, Is ortunate in that he has one wer item to worry about.

This is because the bank completed the bulk of its year 2000 work at the end of 1997 "We wanted to be able to work on the Y2K problem without jeopardising our other

work such as the euro project," says Mr Bari. The single European currency is seen as a powerful new opportunity by the bank and work is already well advanced in this area.

This summer, for example adapted its IT systems to print an extra column on all customers' statements giving the value of their transactions in euros as well as liras.

The bank also faces big IT challenges in other are Along with many other banks, it is eager to exploit new opportunities in home banking and e-commerce.

It recently announced an

agreement with Visa to offer its customers digital certificates based on the Secure Electronic Transactions standard.

technology task facing the

design decisions

problems caused by the year

2000 date change. But there

can be little doubt that the

software industry must

shoulder at least some of the

According to latest figures

from Cap Gemini's millen-

nium index, the cost of fix-

ing software to forestall year

2000 problems will be about

\$200bn - 23 per cent of the

estimated total global bill of

\$858bn. The final cost could

be much higher. It has

already risen by 12 per cent

from \$179bn since April.

Computer industry sup-

porters are, of course, quick

to defend the lack of pre-

science by programmers

with cliched explanations

about the lack of storage

space in early computer

systems or that the software

was never expected to last as

User organisations must

also accept some of the bur-

den for short-term design

decisions and not insisting on an earlier solution to the

year 2000 problem. It was,

after all, an entirely predict-

There is, however, a posi-

tive side. Software builders,

and those who supply them

with the tools to build appli-

cations, have recognised

that, while year 2000 prob-

lems are unique, there are

other potential problem

areas they must allow for.

The software of the future

must, therefore, be built in

lems will be solved more eas-

"I am not sure the year

2000 problem could have

been avoided in the main-

frame area, given the state

of the early software and the

hardware it had to work on,"

says Tom Depasquale, senior

vice-president of information

management at Platinum

Technology, the US software

ten that way just to get it to

work. Most people, of course,

took that early code and

and that's how the two-digit

"Software had to be writ-

products company

ily and less expensively.

long as it did.

responsibility.

SOFTWARE TOOLS by Philip Manchester

with those of the other four groups that recently combined to form Unicredito Italiano Italy's third largest financial

bank is integrating its sys

Italy's banking industry is notoriously fragmented and Cariverona is itself the result of several mergers, it comprises 445 branches in seven regions of Italy. Its handled by an IT centre with 200 staff that can process up

to 5m operations a day and

provides services to some of

the other banks in the Unicredito group. The creation of Unicredito taliano is the latest in a long line of consolidations in Ita banking. But for the promise behind such mergers to become reality, the partners nust weld together their disparate systems so economies of scale can be achieved and processes

Euro project

The systems integration work has already started but will not be completed before 2000. Because of these and other business challenges, Cariverona was keen to ge the Y2K problem resolved sooner rather than later and long before its euro project moved under way. "At the end of 1995, we

knew we had to modify our systems to make them Y2K compatible but the problem vas we did not know how to As with many banks

Lessons learned

It is too late to start He is less bappy with PC problems in the future.

opers, however. "When you

look at what has happened

with the PC, it is far less excusable. The industry

should have taken a bigger responsibility and we would

have avoided some of the

hardware technology

advances and a greater

understanding of the soft-

ware development process

should make sure there will

never be a problem on quite

the same scale as the millen-

and there are a lot more

people out there keeping an

eye on what we are doing."

improved and programmers

don't need to worry about

the hardware performance

and storage sizes like they used to. I think it has also

taught us to build more defensive software codes, on

the basis that whoever wrote

it will not be around when it

course, and changes to tele-

phone numbers could be a problem. There is also the

euro, which I think could be

While it is true that, gen-

better designed and more for several years.

techniques. Better training researcher, notes, for exam-

and accepted standards are ple, that revenues from

avoid design and coding bility of something like this

compromises. And secondly, catching us out in future is

we need open standards for unlikely," says Mr Depas-

He says that, had compa- vently that he is right.

erally, today's software is

reliable than previously,

there are some who see this

improve software production

"There will-certainly-be

Reza Mikailli, chief execu-

tive of Unify, a US software

tools and database company.

taught us a couple of valu-

able lessons. Firstly, those

applications need proper

moduled it is extend their systems - building software compo- quale. Computer users

concerned with building

training in a methodology to

"But I think year 2000 has

other 'time-bombs'," says 2001.

There are other dates, of

needs changing.

more difficult."

also important.

such a way that such prob- as only a starting point to

Improvements

"The industry bas changed

"Coding techniques have

He adds, however, that

the hard way

While many accusing fingers point to the

software industry, user organisations must

allocating blame for the suppliers and software devel-

costs."

nium change.

he says.-

accept some of the blame for short-term

mainframes and the Cobol programming language. The bank estimates that 90 per cent of its programs were written in Cobol, "It Is-

important to have a detaile inventory of your programs because, depending on the languages used, the scale of the Y2K problem varies considerably," says Giulian Malfato, who heads the Y2K

Most Cobol programs an cuite old, which means they are likely to be most utnerable to the Y2K. But Cobol is also the

market that most Y2K tools endors address, so the problem is in some ways asier than for more esoteric programming language After an analysis of the Y2K

handed the task over to an external contractor to reduce the workload on its own IT staff. But most contractors balked at the tough deadline imposed by the bank, which wanted the majority of the conversion completed by the and of 1997. Cariverona started a pilot

conversion project involving 100 applications using conversion tools to produce new program code "cleaned of Y2K bugs. But Mr Malfato says this approach, based on a technology called "date field enlargement" would have taken far too long. With this approach, each piece of program code that contains a reference to a year is expanded from two to four is time-consuming and costly

nies followed a formal development methodology, they

would not have a year 2000

problem in the first place -

and they can ensure they are

ready for any comparable

The combination of fol-

lowing a development meth-

odology and using more

component-based software

will certainly minimise the

impact of a change like year

Development methodologies lay down the disciplines

for a development project

and enforce long-term design

computer-aided software

engineering tools in the early 1980s, methodologies

are now usually linked with

high-level "object" modelling

tools from companies such

as Sterling Software and

Component-based software

fits the engineering

approach to software devel-

opment well. It breaks soft-

ware systems down into sets

of self-contained components

that can be brought together.

support different applica-

More important, like sub-

nents can be reused in other

The shift to component-

based software systems is

well under way. Most infra-

structural software - operat-

ing systems, database man-

agement systems and so on

products have been built

using component "objects"

and leading application

The practice is gradually

spilling over into the devel-

opment of software applications. IDC, the market

object-oriented development

tools will approach \$4bn by

Increased use of standards

such as Object Management

Group's Corba and Micro-

soft's Active X will also

"As we see the growth of

re-usable objects or compo-

nents, and wider use of pack-

ages such as SAP, the possi-

everywhere will hope fer-

accelerate the trend.

applications.

Rational Software.

Originally associated with

2000," he adds.

of Germany and a local partner which promised to do he job much sooner. The technology employed is alled "time windowing" and has the advantage that only 10 to 15 per cent of programs

need to be changed. alculations involving dat are analysed and checked for validity, so the actual two-digit representations of vears stored in the program remain

es up to 90 per cent of all

changed and then retested.

Instead, Cariverona opted for an alternative proposal put together by Slemens Nixdorf

inchanged. This windowing approach dso allowed the conversion to manual intervention was

This enabled the bank's 30,000 programs to be converted in five months. But it realised that its Y2K ffort had to be continuous. At Cariverona, around 200 programs are modified in some way every day.

corams were all certified Y2K compliant on a civen tate, there was no guerant that they would remain so. To take account of this the

benk set up a "repository" in which all the date references stored. If a program is modified the changes and their effects can easily be

Mr Barl says the repository has the advantage that once it has been created, it can also be used for other purposes such as the conversion to the euro which the bank now s as its most pressing challenge.

"The auro is a totally different issue but, thanks to the Y2K project, we have allows us to also handle the euro easily," he says.

DANGEROUS DATES by Mark Vernon

### Why ships could be all at sea when clocks tick away

The turn of the century may not be the only date which could cause headaches for the unwary

What-use would be a computer that counted backwards? Strangely enough some do, and they might make themselves known on January 1, 1999, as a foretaste of the main year 2000

the date beginning one year hence, counting backwards to the correct day. On the first day of 1999 they could see "DO" as they look forward and, like a child at school, trip and stumble at the thought of counting backwards from nought.

This is another example of the threat which the unlikely aggressor, the computer clock, poses to the unwary. And as awareness of the millennium "bomb" has grown, so the world has hecome aware of the arbitrary dangers of a number of

other "doomsdates". One of these occurs in August, 1999. For the clocks inside the 24 satellites orbiting the earth which form the Global Positioning System. this month marks a turning point. These clocks have been counting the days since their launch in 1980, rather like the mileage gauge on a car. And next August 22, the counters will roll back to manufacturer, released a statement only last year say-

September 9, 1999 is also reported as one to watch. computers might record this date as 9999, which is also a default figure for the date fields in certain applications. Other machines could interpret 9999 as an "end of file" command. Would a computer

Mr Collins has noted a rise

account of it." coming across a row of nines But, since the word modern here could mean receivers made little more than a week number transmitted in year ago - Garmin, a US

the satellite navigation mes-

internal glitches, unlike the

computer which crashes

because of a Y2K conflict

But back on earth, earlier

receivers of GPS information

might not be able to corre-

late geographical location

and time correctly and that

would puzzle navigational

systems on ships, for exam-

ple, "This is not a satellite

problem but a data encoding

problem," explains Graham

Collins, proprietor of UK-

based Effective Solutions, a

GPS vendor. "More modern

GPS systems do take

This will not cause any

sage moves from 1023 to 0.

ment at the University of Newcastle who chairs the ing current models would UK Unix user group is scep have no problems - this tical of this portent, could turn into a vital issue.

in demand for simulation software and expects connot do it.'

in the midst of the code simply come to a halt? Lindsay Marshall of the

"I find it hard to conceive ASCII text ithe basic com puter character code]," he "Unix has - and always has had - a proper end-of-file command that is perfectly good. This sounds like an old card trick. Prope Unix programmers would

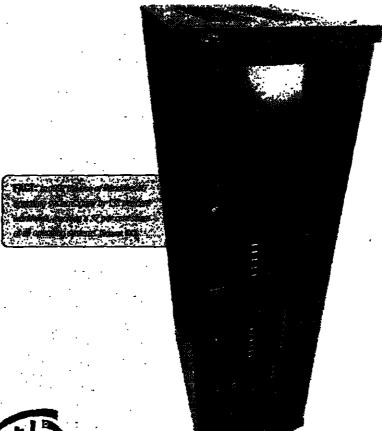
Even if some rogue devel opers were to sign their work in this way, they would be much more likely would represent a date long past, January 1, 1970. However. Dr Marshall is

# In the {Basement}

### of the 30 storey headquarters of a multinational company.

e-business means a lot of things, it means moving business to the Web. It means improving relationships with customers, suppliers and employees. It means looking at business data in new and meaningful ways. e-business also means looking at PC networks in new ways. And it's no secret that Windows NT has become one of the most popular new operating systems in the corporate world.

What you may not know is that IBM is building Intel® based servers with the power to run major business applications like those from Baan, JD Edwards, Oracle, SAP and others used in the largest of corporate networks.



But it isn't just power and reliability that distinguish Netfinity servers from their would-be peers. They come with tools like Web Server Accelerator, which optimises performance by up to 60 per cent when a Netfinity 7000 server is used to serve up the Web, or our management suite for Windows NT which makes it vastly easier to manage and run your network, allowing you to spot potential problems and deal with them, fast.

It's that we work in partnership with leaders like Intel to bring new, more powerful technology to market well ahead of the competition. It's that Netfinity servers are tested on, and optimised for. Windows NT. The Netfinity 7000 M10, for example, is powered by the new Intel® Pentium® || Xeon® processor at 400MHz, and has some of the best performance benchmarks of any NT server.

History, plain and simple, also separates these servers from all others. IBM has been building mission critical systems for the corporate world for decades - and now we've applied that expertise to the world of Windows NT. Netfinity servers are the first NT servers to offer mainframe-class memory protection. They offer scalability features you don't expect in NT systems - like the ability to hot-swap disk drives, power supplies and lans - without ever going off-line. Netfinity servers are also quick and easy to integrate into your existing IT infrastructure, whether it's powered by IBM (Ihank you) or not.

Windows NT servers from IBM aren'l just looks for big business, they're looks for big e-business.



The IBM Netfinity 7000 series. High performance servers for Windows NT.

Model shown: IBM Netfinity 7000 M10. Up to 4-way, Intel® Pentium II Xeon® processors at 400MHz! Up to 8GB interleaved ECC memory. Prices starting at 56,983" (ex.VAT)



e-business tools

### Special help for those with Y2K computer date fears

Seeking assistance outside the company to solve year 2000 IT problems can save time and money, but it may not be the right solution for all businesses

With the millennium deadline looming and internal resources strained, many organisations are tempted to turn to an external "Y2K factory" to help fix their year 2000 programs. But as some have found to their cost, this option can create

more problems than it solves. At first sight, there are obvious benefits in delegating some or all of the Y2K remediation effort to an external contractor with a specialised centre, or "factory", dedicated to fixing millennium date problems. For example, some companies may not have sufficient IT staff for the task, or they may lack the specialised tools needed to inspect, fix and test code.

"One of the best ways to get around the resources shortage is to use tools to increase productivity, says Chris Webster, head of Y2K services at Cap Gemini, the computer services company. Cap Gemini has 21 factories that have renovated more than 300m lines of program code for hundreds of organisations worldwide.

The services offered range from checking and analysing the level of "date infection" in an organisation's programs right through to a fully automated renovation service. A Y2K factory, by definition, has staff with greater expertise in handling the Y2K problem and a variety of the tools needed to inspect and fix even the most esoteric programming languages and thus achieve higher levels of productivity and

By using an external factory, an organisation thus saves having to purchase its own Y2K tools and

having to train staff to use them. Another issue is that the impact of the Y2K problem is usually greatest on older "legacy" programs written by programmers who have long

since left the organisation. "Y2K requires you to make a significant investment in old skills." says Ian Baker, Y2K manager for IBM's European operations. Few in-house IT staff relish the prospect of looking for bugs in decade-old programs, so by offloading the Y2K work to an external contractor, internal staff can concentrate on more interesting work and the money saved on licences for special Y2K software tools can be used for

more strategic purchases. One of the principal benefits of using a Y2K factory is its formalised "factory-like" process that is ideally suited to the highly repetitive tasks involved in analysing and fixing millions of lines of program code Experts say organisations with more than a million lines of code should seriously consider using a Y2K factory simply because of the problems of managing a project of this size internally.

#### Fingers can be burned on Year 2000 projects

"For this type of project, you need to be very disciplined, yet a lot of companies, when they try to do their Y2K work internally, do not treat it as a normal IT project," says Paul Gosling, European Y2K project. director for US-based Unisys. "Y2K is a high risk project on which to burn your fingers.

"migration factories" in various countries that offer an industrial style specialisation of function similar to a conventional manufacturing factory and a set of well defined processes and

One of Unisys' largest Y2K projects is for Abbey National, the UK bank; it centres around a software factory built and run by Unisys in Milton Keynes. This uses highly automated production line with specialist work cells at each stage of the Y2K compliance proce

The project, which started in early 1997, involves 14m lines of code written in 16 different computing languages and should be finished for the end of 1998 at an estimated cost of over £30m. At its peak, 330 staff worked on this project.

IBM has created a network of 23 "renovation factories" around the world of, which nine are in Europe. The latter have completed 2,900 Y2K projects. Like several other players in the Y2K industry, IBM has sited some of its renovation factories in countries with lower labour costs such as India, Belarus and Pakistan. The "offshore" software industry

was quick to spot the opportunity that the millennium "bomb" offers, as the cost of doing the Y2K work is considerably less in developing nations up to 50 per cent cheaper, according to some industry

Offshore Y2K factories also help solve the year 2000 skills crists as programmers skilled in older programming languages are in short supply in many developed economies. But some organisations that have sent Y2K work offshore have found it is not the cure-all that

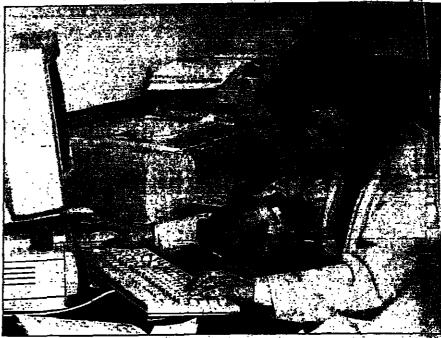
who have sent program code offshore that comes back and contains quite significant flaws;". says Mr Gosling of Unisys. He know of cases where date references were missed in the original code – and thus remained susceptible to the Y2K "bomb" - and where

#### Dealing with distant software houses

"Y2K work can be done well offshore but you really need to understand how to make it work," he says. There are special challenges in dealing with a software house that may be on the other side of the world. The most obvious one is managing the project and, in particular, the logistics of shipping code back and forth.

"The idea that you can throw code over the wall. fix it and then ship it. back simply does not work," says Mr Baker of IBM. Another challenge is the security risk. The US Central Intelligence Agency fears that US companies, in their rush to fix the Y2K problem, are sending not only their bug-ridden code offshore but also commercially sensitive

The security and project management challenges are highest when using an offshore Y2K factory but they are also issues to consider when using Y2K factories located closer to home. Yet whatever the risks of using Y2K factories, some organisations may have little choice With less than 13 months to go before the new millennium, analysts warn that those late to start Y2K. projects may miss the deadline if they attempt to do it all themselves.



allow more people to work from home offices. In the US, Berbara Casey, above.

### Equipment buyers spoiled for choice

With information and communication technologies converging rapidly, consumers face an exciting array of products and services, writes Paul Taylor

A digital whirlwind is reshaping the traditional computing, communications and consumer electronics industries. It promises unprecedented choice for consumers and business users in a new multimediarich world of information. education and entertain-

Nowhere is this revolution more obvious than in the home and home office where the convergence of the "three Cs" is creating new opportunities and challenges both for the suppliers of products and services, and the users

In particular, the distinc tions between types of device - for example personal computers, set-top boxes and intelligent phones - are becoming blurred, as are delivery mechanisms including cable, wireless and

telecoms and broadcasting industries - made possible by developments in digital technologies - means that many different organisations are positioning themselves to provide multimedia products and services to the home and business," says the London-D

market research firm. For the home office user, this means that a single PC can now function as a high resources of the Internet for fax communications tool and as a means to market and sell products or services using electronic commerce.

What is more, given the global reach of the Internet, the small business user can contact and conduct business with partners and customers on the other side of the world, just as easily as if they were on the other side

Web-publishing software from Microsoft, SoftQuad and other companies makes it easy to create web pages and then upload them to an Internet Service Provider's hosting site. By adding a digital camera - which now costs little more than a traditional 35mm SLR - or a page scanner high quality images can also be added.

#### Setting up for e-commerce

Today, it is possible to set up a complete electronic commerce-enabled small office or home business using just a basic PC, modem and ISP account. Typically, however, a home office buyer should specify a machine with plenty of power and expansion capac-

With PC prices continuing to tumble, a brand name PC complete with 366Mhz Intel Pentium II processor, large 9Gb hard disk and 56Kbps modem can be bought for \$1,000 or less in most mar-

A colour inkiet scanner will cost another \$150, although a growing number of home office users are opttion devices which, for example, combine the operations of printer, fax embrace new technologies. machine, copier and scanner in a single machine costing sion, smart phones and low-

perhaps \$600. be transmitted, or lots of time will be spent on the Internet, most small busi-



computer show, examines the keyboard of a personal computer.

may well be an ISDN (Integrated Services Digital Network) line supplied by the

local telephone company. ISDN lines can transmit and receive data at rates at least twice as fast as the fastest analogue modem. However, even faster options ire just around the corner.

Among the high bandwidth technologies which are likely to be deployed over the next few years are cable modems and ADSL (asychronous digital subscriber line) devices, both of

The small

### office, home office market

Here and on the following two pages, FT writers highlight advances in digital technology for the 'SoHo' sector

which offer substantially higher capacity than ISDN

The launch of direct satellite services like the DirectPC service in the UK, which use rooftop satellite dishes connected to PC-card adapters manufactured by companies such as Adaptec. provide another option.

These super-fast digital delivery systems are capable of delivering broadband multimedia services including rich web content and high quality video-conferencing direct to the desktop, and they could have serious repercussions for existing distributors.

Internet telephony and subscribers at present. e-mail are challenging traditional telecoms business models, while web television and "push" technologies are forcing broadcasters and information suppliers to attitudes towards digital reassess their strategies and

In the home, web televiprice computing devices entertainment into providing If large files are going to such as set-top boxes and network computers could tion and opportunities. Post herald the arrival of the digital networked home. Ovum ness users should also con- believes NCs are significant sider investing in a high- because they are part of the sets." But he adds: "It will

new services to be developed. "NC's could provide the 'bridge' between the competing aspirations of the television and computing industries." says Oyum.

Digital radio and television broadcasting also represents an exciting new opportunity. Over the nast two months, mass market digital satellite television has been launched in the UK and digital terrestrial television has made its world debut.

Some industry experts like Ed Straw, a partner with PricewaterhouseCoopers' consultancy practice in London, believe this could usher in a "platform war" between digital cable, satellite and terrestrial services. Rach platform has its benefits and its drawbacks, he says, Overall, it could be an even race.

In the longer term, Internet or telecoms delivery is another potential platform the indirect competitive threat, in terms of competing for screen time, is already here, said Mr. Straw.

### Digital television

Nevertheless, most industry analysts agree that digi-tal TV - delivered by whatever means - has enormous potential. "Digital television will change the way we shop, the way we bank and the way we use information and entertainment, says David Coverdale of Pace, the UK-based electronics group, one of the main suppliers of the set-top boxes required to receive the new satellite, cable and terrestrial ser-

However, forecasts about the uptake of digital TV, which is already available in many parts of the world. the Digital TV Worldwide 1998 report, prepared by Market Tracking International. the global audience for digital TV is forecast to reach 58.5m by 2002, seven times the estimated 8.4m digital

John Clements, chairman of Continental Research, the new media research specialist, writing in a recent report television, says digital TV offers a totally new form of personally relevant informa-2000, it will change the face of TV and the ways in which users interact with their TV capacity digital communica- convergence between the TV not happen overnight - it tions link. In most places in and computer industries and will be a gradual process."

The real explosion of Windows NT servers has been at the departmental level - growing from the desktop up, connecting into larger networks, enterprise servers and legacy systems.

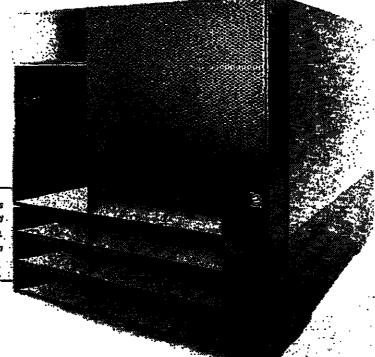
The growth of intranets, Web commerce and sophisticated custom apps built with powerful cross-platform software like Lotus Domino has fuelled the demand for powerful, reliable servers that connect thousands of users inside an organisation from sales reos in the field armed with ThinkPads to desktoo users in customer service departments. Servers like the Nelfinity 5000 series.

These people also need access to the detailed information that resides on more powerful systems that are the core systems of a major enterprise (like, say, an IBM RS/6000 SP Unix server capable of processing millions of transactions a second) Which means the ability to integrate departmental Windows NT servers into larger networks is critical.

Netfinity servers like the new Netfinity 5500 M10 help simplify this integration, with IBM Netfinity Manager software. It ships with every Nethnity server. It lets you manage clients and servers from dozens of leading manufacturers. And it helps you lie into enterprise-wide management software such as Tivoli Enterprise, Microsoft SMS and Intel® LANDesk.

 This is what e-business is all about – not just building powerful servers for departmental use (and make no mistake, the Netfinity 5500 can handle everything from huge e-mail networks to 24 x 7 Web commerce), but providing tools to integrate and manage those servers as part of a much larger network. This, in turn, helps you control costs and keep your network up and running. That is the difference between an ordinary, everyday server and an e-business tool.

> FAST: In the last two years, the use of Windows NT servers as departmental servers has exploded by more than 250 per cent. At the same time, more than 4000 new applications have been developed especially for Windows XT



In a windowless room on

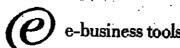
the 8th floor

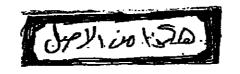
marketing.

between sales and

The IBM Netfinity 5000 series. Scalable servers for Windows NT.

Model shown. IBM Nettinity 5500 M 10 Up to 2-way, Intel® Pentium® II Xeon® processors at 400MHz Up to 2GB interleaved SDRAM memory. Prices starting at £4.546° (ex. VAT). The IBM Netfierly 5000 range starts at £2,086° (ex. VAT).







Standard Markey

seem to the to Bushes Court to

FINANCIAL TIMES WEDNESDAY DECEMBER 2 1998

INTERNET SERVICES by Mark Vernon

### discerning eye is essential

Quality of service is the most important factor in selecting an Internet service provider for the smaller office

The hosted internet says Mark Allcock, technoleconomy is set for substantial growth, being projected

"We wanted an e-mail sys to reach \$85hm by 2001. tem that integrated with our But today, it takes a disinternal system, controlled cerning eye to see the wood web access for a few, a web for the trees when choosing hosting facility and remote which of the proliferating dial-up connections for the Internet Service Providers is sales team." best suited to provide any-However, only a few ISPs thing from basic Internet replied with anything more access via a dial-up modem

than a standard information to a full service of outpack, which Mr Allcock sourced intranets and extraimmediately discarded. Some others tried to over-It is, perhaps, the small to sell services. A short-list was medium-sized businesses drawn up from the few which talked to Denby about which have the worst of it. Without the benefit of what it wanted and submitted proposals. long-standing, evolving relationships with large IT Exploring the technical they can be support these would provide

ogy manager.

mped in a sea of offers was important, as was ensurwith few criteria upon which ing that they would not add to decide which ISP can best hidden charges, say, for updating web pages. The company which designed support their needs. One UK business, the Denby Pottery Company, Denby's web site helped at first investigated what benethis point with mock out-offits the internet could bring hours support calls to the

through a dial-up ISP randidate ISPs "On these criteria alone, This minimal investment we were very quickly able to soon proved that the Inter-net was invaluable to the IT choose just one," says Mr Allcock. That was PSInet. department for technical The important thing is to

be professional in approaching people for researching ing ISPs and think carefully customers and as a commuup front about what you nications tool using e-mail. actually want," he adds. But it also quickly became This point is taken up by clear that upgrading the system to a leased line would be

Nick Gibson, Internet analyst at Durlacher, a UK research company. "For example, if you can survive without e-mail for say half an hour a day, virtually any ISP will do," he says.

"But if you need guaranan auditing process to see tees of up-time and speed, whether a line goes down or



Finding the best way to gain access to the internet is not ex

service level agreements become a very important fac-

"A first element in any service level agreement will be guarantees of the time in which technical problems are solved. Downtime limits on leased lines will also be set to protect loss of reve-

A number of the larger ISPs now offer compensation if a service is off for three hours a month or more. which represents a 99.9 per

Speed of data transmission or latency guarantees may

also be sought, but these can be hard to define or enforce. "There are a number of complex factors involved in Internet performance of which no one organisation will have control," says Mr

Gibson. "Further, you need

is slow, and that can be hard to implement." This advice would tend to suggest that the larger ISPs are a better bet - the 10 per cent that actually own networks, "These companies

have better control over

what is going on," says Mr

Gibson. "Further, they might be able to offer more flexible bandwidth and so cope with sudden increases in traffic," However, this is not neces-

sarily the case. The ISP marand general rules might not be a good guide to the quality an individual company will provide.

For example, contrary to the advice to go with a larger ISP. Chelsea Football Club uses Direct Connection to support a very successful

web site. "When the site was launched it was with IBM's

multimedia editor for the London club. "But the site became popular and their rates were too high for the bandwidth we needed."

Mr Manthorpe assessed a number of ISPs in the market place to look for an alternative. These included VirginNet, with which the company already had a relationship for certain online

activities. Direct Connection won because they could offer guarantees to match the bandwidth demand. The fact that their hub is located in Telehouse, the main UK Internet exchange point,

assists performance. Also, the ISP was willing to enter into a financial deal with Chelses, under which each has links to each oth-

er's web services. "There is still a substantial amount of money

involved," adds Mr Manthorpe. "Chelsea is not short of cash."

All in all, quality of service is the most important factor in choosing an ISP. Smaller companies are entitled to that too," says Nick Jones an analyst at IT

research firm Jupiter. But some special consider ations apply. "Don't be caught out by a large growth of traffic." he says. "Many ISPs provide a 'burstable service (to cope with demand surges), but they may only lay on extra capacity at extra cost.

"Good relations with the ISP are vital so they can move with you as you develop the site. And beware of being charged for services which are free elsewhere."

# choice Tempting PC offers for companies willing to spend

The potential market is huge, but support and advice are essential in winning over smaller businesses

Amid the bustle of the Comdex trade fair in Les Vegas, IT w

For Europe's small- and SMEs are renowned for premedium-sized enterprises ferring to use local suppliers. (SMEs), there has never been a better time to buy a personal computer. Not only are prices continuing to decline, but manufacturers have also out that 85 per cent of its woken up to the potential of the market and have launched a series of initiatives designed to support with Dell through its web

Analysts' estimate of the SME market for PCs in Europe vary, but the number of units sold last year was around 5m. This would indicate a market worth around \$8.5bn. PC suppliers' interest is, therefore, bardly surpris-

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A CONTRACTOR

The SME computer market is without doubt one of ble-shooting on the web or the most exciting areas for by telephone. us." says Jan Gesmar-Larsen, president of Europe, Dell Computer, the US manmacturer. Dell is currently \$2m worth of PCs a day in Europe, double the a reflection of SMEs' ignoamount of three months ago; thios accounts for a fifth of its total sales.

The company has taken the PC market by storm over the past three years by using the Internet to drive its direct sales strategy. It has now targeted the SME market as an area with strong growth potential, setting up a new virtual European service and support centre to

underpin the initiative. However, Eric Schmitt, an analyst with Forrester Research in the US, believes one of the key challenges being faced by PC suppliers is the demand by SMEs for greater support. "They see fewer and fewer differences between the various PC models and are putting more emphasis on advice and

hand-holding." For Dell, which has eschewed a dealer network in favour of direct sales, this could prove a distinct disad-

believes the Dell business model is well able to deal with the situation, pointing with over the telephone. Customers can also deal site, with the European version having recently launched a new service initiative.

amount of face-to-face hand- ers at a distance. holding that SMEs require, arguing that a large proportion are buying their third or fourth generation PC and are comfortable with trou-

Jacques Heynen, SME manager for the region for computer manufacturer, believes that the trend rance of technology, but rather a desire to be supplied with a solution to their computing requirements, rather

than individual products. "They are looking to us to provide the right tools for their business, not just the

HP launched a global initiative a year ago to target the SME market. Its Spotlight strategy provided additional training and support for HP dealers as well as the launch of products specifically aimed at the SME mar-

In Europe, this meant providing additional resources to 11,000 out of the European dealer network of 60,000. The result has been a rise of 40 per cent in PC sales and 10 per cent in printer sales to SMEs. The Spotlight programme was based on the findings of a poll commissioned by HP to discover which barriers SMEs perceived as preventing them from buying, or upgrading their, computer systems. Three key features emerged:

☐ Fear of obsolescence. Many companies were reluctant to invest in new technology because of concerns Gesmar-Larsen that it would be quickly overtaken by developments. □ Need for solutions. There were also concerns that individual technology customer queries are dealt purchases alone were not sufficient to provide the

nological requirements. Proximity. Many companies preferred to conduct business with local suppliers and were reluctant to He also disputes the become involved with suppli-

To encourage businesse to buy the latest equipment, HP introduced "E-finance", a scheme which enables them to update their technology, either at a reduced cost or free of charge. HP also addressed the need for solutions by forming partner-Middle East and Africa for Hewlett-Packard, the US ships with software vendors to provide as many applications with the PC as possi-

> Mr Heynen also points out that HP is able to offer SMEs an integrated package of PC. printer, scanner and fax.

> Finally, HP has introduced its Brio range of PCs aimed at the SME market. Patricia Rubio, who heads the Brio division in the UK, says the range has been designed to be both price and product sensitive in order to address the wide range of businesse within the SME market. Thus in the UK, Brio PC prices start from as low as £600 (\$1,000).

However, while low prices are good news for busies, they are a worrying trend for the manufacturers. Forrester's Mr Schmitt says that the sub-\$500 PC is likely to be on US shelves before Christmas, with European prices likely to follow swiftly

With greater support, more targeted products and lower prices, the outlook for SMEs looks likely to con-

necessary to roll out the

advantages across the com-

ISPs from the trade press

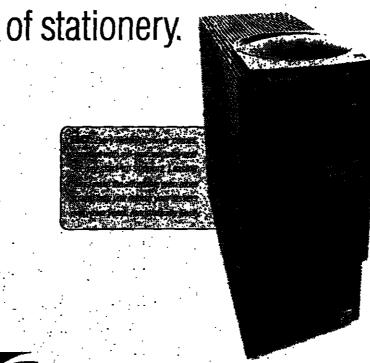
and wrote to them with

details of what we wanted,"

"We collated details of

### In the Back office }

between the coffee maker and the boxes



But what if you're not a large business yet - or even a medium sized business? What it the sales department doubles as the marketing department? What if corporate HQ is your desk? And your bedroom back at home seems more like a 24-hour branch office than a place to sleep?

Well, IBM is making Windows NT servers for growing businesses with all their growth still to come. That means prices you can afford right now: the basic Netfinity 3000 (complete with an Intel® Pentium II processor at 350 MHz), for example, starts at just £1,199\* (ex.VAT). That's affordable but not stripped. Like all Netfinity servers, the Netfinity 3000 comes standard with powerful Lotus Domino and Netfinity Manager Software

This makes it easy and affordable to put your business on the Web, allowing millions of customers around the world to reach you. So you can grow from a very small business to a very large one. As you grow, you'll appreciate the virtues of the system management software that makes it vastly easier to keep your network up, running and generating more business.

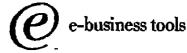
Of course, the value, quality and reliability of the Nettinity 3000 server is such that a whole bunch of not-so-small businesses will choose this server by the dozens for things like print spooling and lile management. Not the most glamorous tasks, but the day-in, day-out, got-to-be-dependable side of what e-business tools have to do. If you'd like to know more about the full range of IBM Netlinity servers and server options see below. You'll find we have the kind of e-business solutions you're looking for Solutions for a small planet.

For more information, simply call Natalia Farrell on 0870 601 0137 or visit www.ibm.com/pc/uk/netfinity In Ireland phone 1850 22 00 33.



The IBM Netfinity 3000 series. Affordable servers for Windows NT.

Model shown: IBM Nettinity 3000. Intel® Pentium® 11 processor up to 450MHz. Up to 384MB® SDRAM ECC memory. Prices starting at £1,199" (ex.VAT).



**DANGEROUS DATES** 

vantage, particularly as

### More trouble ahead

From page 11:

not saying that the problem will not happen, only that it

is very unlikely. Even when 2000 has been reached, and the millennium "bomb" has been fixed or the damage undone, the hassle may not be over. Two after shocks could be felt during the year.

These are both associated with the fact that 2000 is a leap year, though an odd one at that. The rule for determining whether a year is a leap year is that it is divisible by four, but not by 100.

Except for 2000. The extra test that should be applied is that years divisible by 400 are leap years, too. The question is - bow

many programmers have realised this? Two scenarios arise for those who have not. First, February 29 might be skipped. Secondly, a computer which counts the days of the year to work out the date will read December 30 as day 365 and so believe that 31 December is January

1, 2001. Missed leap years have caused problems in the past In 1996, a computer in an aluminium smelter in New

a day early at the turn of the year. The furnaces solidified as the metal cooled inside them and cost the company millions of dollars to clean

The Belgian stock exchange suffered a similar ment when trades. were recorded on the wrong of carelessness, simply forgetting about leap years in system code. But it might be erroneous to believe that year 2000 fixes have dealt with the problem:

"The leap year issue should be a standard check and thereby eliminated," says Robin Guenier, director of Taskforce 2000, the independent UK advisory group. "But you can't tell where

someone is going to miss it. "Some inevitably will. The only thing that matters is whether these are important

Once 2001 has arrived, the impact of rogue Unix programmers might be felt ing of, say, long-term finanagain. The ASCII representstion of September 8, 2001, is 999,299,999, another possible end-of-file command or Unix's very own millennium "bomb" a few months late.

more distant future, 2088 is another year to watch. Some developers are already talking of the Y2.088K bug. The problem here is for any program language that counts time in seconds from January 1, 1970. This

includes Unix and also others such as C and C++. Some time in the early hours of January 18, 2,147,483,647 seconds will have passed since the counters began and they will flip back to zero as that is the largest number that can be

stored in 32-bit systems. "This is a much barder problem," admits Dr Marshall. "One answer will be to have 64-bit machines by

Hal Hovland, of Financial Objects of the UK, has tested machines up to 2100 and noted that many would crash in 2038. "Bowever, it won't affect calculations themselves," he adds, thinkcial instruments.

"The IT problem only ning on the date or beyond." history books. But it would

occurs when software is run-By then, doomsdates should be confined to the

Users must hope that Dr Marshall is right. Taking a look into the the year 2000 problem arose. 20212nd shut the plant down

### Versatility is at a premium when office space is tight

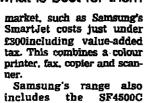
Devices which combine several functions in one handy unit are falling in price but users must work out what is best for them

print, scan or fax are becoming cheaper. They are idealfor the small or home office because three or four devices are compressed into the

Multifunction devices on the market include models from Canon, Brother, Hewlett-Packard, Oki, Pitney Bowes, Sharp, Toshiba and Xerox. Some MFDs are a combination of inklet printer and other functions. Others are built around laser print-

Prices for a multifunction machine with a laser printer, office-quality plain paper as the Hewlett-Packard LaserJet 3100, come in at around

Hewlett-Packard is also introducing a £380 printer- a number can be used as netcopier-scanner with multilingual optical character read software from Image Recognition Integrated Systems, a Belgian company, that increases the accuracy with which documents can be



launched last month at

around £400 - designed to

the busy small to medium

office - and the SF6100

aimed at the corporate mar-Brother has launched six-in-one multifunction machine, the MFC-9550, for under £600, offering laser

PC-faxing and scanning. multifunction Many devices can be used to print scanned-in photographs and work printers or local-area network faxes. Machines such as the 3100 and Sharp F-3600M can also be used to

Anyone wanting to photocopy bound books or reports. An inkjet model aimed at should look for a model the small office/home office which has a flatbed scanner/

send faxes directly from the

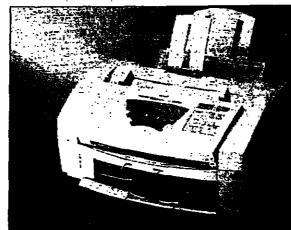


Popular choice among smaller business users: Brother's six-in-one colour multifunction machine, the MFC Pro-700C, sells in the UK

Managing Director,

a the Compute Associate Reference for Essential Billion constants of productions are recognized as to be as of the complete con-

McLaren International



For smaller offices: Canon's new MultiPass C500 machine provides full colour printing, colour scanning, copying and high speed faxing. The price in Britain, excluding VAT, is £548 faxing, printing, copying,

conier, so that it can be opened up and the book put are available from Pitney Bowes and Hewlett-Packard. Otherwise, most multifunction machines are designed to scan or copy single sheets of A4 (or smaller) inserted into a slot.

One of the biggest advanmachines is that, because they are designed very much with the consumer and small usiness in mind, they often come with better instructions than information technology companies' other products. For example, Hewlett-Packard's LaserJet 3100 comes with a very clear set of instructions

By contrast, the same company's dedicated small business LaserJet 6P printer does not even include a cable, and does not point this out until several pages into the installation manual.

Other advantages of MFDs include price, size and convenience. They are cheaper to buy than three or four separate machines. They take up far less space. And only one purchasing decision

Samsung believes the marwill increase 100 per cent a fax.'

year, with 75 per cent of growth expected to come from the small office/home

office market. However, MFDs do have some drawbacks. Deborah Sauer, vice president of marketing at Pitney Bowes, the US-based facsimile company, says: "Just because certain types of functions have been tages of multifunction added [to an MFD] doesn't mean they've been imple mented in the best way. You have to have a clear idea of your main business applica-

> "If you mainly want a printer, with added features, then certain types of machine are good for that. If you are a heavy fax user, MFDs don't always offer the higher quality error-correction modes.

> Friedman Wagner-Dobler an IT consultant, also points out that "you will also need quite a bit of space on your PC for the software that comes with the multifunctional device"

Multi-function machines are excellent for home users, adds Ms Sauer. "But in a very busy office you don't want to wait for someone to finish an urgent photocopyket for multifunction devices ing job before you send a

learns in Formula One history.

Since 1966, McLaren has won

seven Constructor's World Champi-

onships, rune Driver's World Champl-

onships and more than 100 Grands

Prix. Not to mention three Indianaco-

ndurance race and five consecutive

st McLaren Merced

"To win consistently, you have

to have the best. That's why we've

learned up with Computer Assoc-

ales," says Ron Dennis, Manacina

Director for McLaren International

Processing our engine and race

data efficiently and intelligently is

it in an entirely new manner."

crucial and CA is helping us approach

Under a technology partnership,

the West McLaren Mercedes Formula

One Team and CA are developing an

innovative new solution that gives the

racing team's engineers the ability

to-easily assess and analyze the

ormula car's performance data.

Busit around CA's Unicenter -

NG", the program can monitor the

ransmils to the pits white it's racing.

verything from throttle response to

wake pressure to even the G-forces

asplays the data through its award-

inning 3-D, Real World Intertace-.

to come in second is to be the first

of the losers," says from Dennis,

"At McLaren we're interested only in winning and we arroot to our-

SEAVES CODY WITH WATERED CONYCAMIES.

With Computer Associates and

Mcf aren, we have two winning

companies sharing a common goal

"I have a favorite savino, that is,

provided on a drawer. TNG then

telemetry data that the race car

is 500 wins, the LeMans 24 hour

Can-Am sports car illes.



#### OFFICE CASE STUDY **UNDERGROUND MOLING SERVICES**

### A space-saving solution

a small civil engineering company based at Felicik in central Scotland, recently wanced a separate fax. printer and copier for a multifunction fax

Jim Montson, the impany's director, has a dedicated home office which he mainly uses out of hours because his business takes

His company, formed in September, 1995, specialise n installing pipes and cables for local authorities and as a sub-contractor. The technique used is to bore underground ather than dio large holes or trenches. Mr Montson's office used to include a personal computer linked to a mono nkjet printer and

printer, a thermal fax machine on a dedicated phone line, a personal copier and a phone line with handset and answering machine. The main limitation of this

errangement was that machines were taking up lots of desk area, shelf space and power sockets. Another problem was that long, detailed faxes often used an entire roll of paper, were of poor quality and had to be photocopied before they faded. Printing out long documents could be slow and the company had to keep lots of paper files because it was not able to scan document

or drawings into its PC. Underground Moling has now installed a multifunction machine from Sharp

print, copy and scan. This is located where the inklet printer used to be and the thermal fax machine has been disposed of.

The photocopier is still needed for larger or bound documents, but can now be stored elsewhere in the hous "This has removed two

large items from the desktoo freeing valuable space," says Mr Morrison. "Long faxes now arrive clearly in a permaform. And even when the paper tray is exhausted. fa arrive in the F-3600M's memory. Moreover, PC documents are now printed faster and at laser quality. Mr Morrison, who has been using the machine for several weeks, says: "I haven't found any drawbacks yet." Using the

mechine R is possible to scan A4 documents on to the PC or to archive them on to a Zip storage) clark or CID-Rom. He is considering doing this, The multifunction fax coines with Office Worktop, a software package for scenning and thing bitmapped images which cannot be edited and optical character read software that conforms to the Twath standard for documents that can be

Underground Moling feels its document production is now as high-tech as the no-dig" technology it uses to bore holes, where computerised tracking guides a boring device, or "mole", as it travels underground, creating a tunnel to its being installed it is then drawn back through the borehole.

Thus, while a neat. multifunction system saves space in the office, so - on ite - two small boreholes a the beginning and end of the cable run replace large, unsightly trenches.

Joia Shillingford

SETTING UP A WEB SITE by Mark Vernon

### Making the online image match the product

Web site visitors must be persuaded to stay, but too many features could put them off by wasting their time

The process of going online can be like "getting changed in a public place," according to one information technol-

ogy expert. No-one wants to be seen sporting purple Y-fronts when everyone else is wearing Calvin Kleins," savs Alex Gibbons, a consultant in the new media skills division at TMS Information

Solutions of the UK. Indeed, who among even the most avid computer buffs would have thought less than five years ago that the humble web page would today be capturing large amounts of research and development spending, be scrutinised by focus groups and be declared the coolest thing in marketing since the

Yet companies are still in experimental mode, assessing the new medium. Some say web graphics work, others decry them. Some say the web is the new place to not work online be, others that it is merely a

with any new marketing hand BMWs. effort," adds Mr Gibbons.

can be identified. Coutent is the key, notably in the AA [Britain's Automobile all-important first contact, the point at which visitors Mr Ahmed. enter the site. They must be persuaded to stay.

Then there is a balance to

#### The secret is to have on the web site what the customer will expect'

be struck between lots of eye-catching features and none at all. The site should not look dull but it also must. not introduce nnnecessary delay. Also, the user must be able to move around the site, although there is much discussion about how to assist

But for many organisa-tions, just finding the way to an online presence is tricky. Lucky companies might find the skills in a web enthusiast already employed on the helpdesk.

seek outside help In common with other forms of corpo- does not mean it has to look rate communication such as like a web page. It must advertising, this means a have a purpose," says Dhar-degree of outsourcing. mesh Mistry, a director at

ferent and in some respects Entranet. more complex," says Luca Menato, executive producer innovative site for the Co-opof Brann Interactive of the

web design and building control. requirements with a specialist company or web intermediaries."

risky. "Culture shock" can much Internet advertising. occur when established com- The findings of its report, panies come into contact Media's Online Challenge, with zippy web design con- suggest a failure on the part sultancies, although many of of advertisers to attract con-

rapidly becoming attuned to the sensitivities of corporate

AKQA, the UK-based nedia consultancy, is a leading example, with a number of international brands on its books. Director Ajax Ahmed works with the metaphor of DNA to unpick the strands of a good web site. The backbone of any site is ed on performance, reliability and ease of use, but more is involved than this. His first point is that the

web site should not be regarded as a new medium so much as an extension of the product. "The secret is to have on the web site what the cus-

tomer will expect, which is not what traditional advertising would say," he sug-Enhancing brand by asso-

ciation is the classic ploy in the advertising world. But this approach usually does Neither does using the

web site to present a collec-"While there is a lot to tion of related but confusing consider, establishing the information. For example, on right strategy for your web the BMW site, AKQA conpresence is not really that structed an approved used frightening. The same princi- car directory through which ples can be applied to this as customers can find second-

"We didn't bother with Certain basic principles things like road traffic information. Customers go to the Association] for that," says

Similarly, for Orange – the UK mobile telephone company - the web is a customer services application. Users can send text messages from its site to mobile is little point in companies providing what is in effect only an online brochure if they want repeat users of

The deeper point is that web sites must not open up a credibility gap between themselves and the product. Mr Ahmed believes that vendors of fast moving consumable goods are particularly

prone to this. They think that they are media owners opting for heenage content, lifestyle features or acting as a gateway to music," he says.

"But the product is the hero. I am not saying that you cannot have stuff [which is not about the product. only that it must be credible."

Intuitive pavigation of the site is vital. Users move But for most, the best and away if they get lost or can-easiest way forward is to not find what they want. "Just because it is the web

Web publishing is no dif- another UK consultancy, The company designed an

erative Bank on which no service is more than one "Unless these companies click away. Further, with a have marketing skills number of subtle features, in-house, they are best the interface tries to ensure served by outsourcing the that the user always feels in

Advertising is a key component in many web sites. although Forrester Research However, this can be of the US warns against too these young start-ups are sumer attention and estab-



The screen may catch people's attention, but how relevant is the online message when it comes to making a commercial impact?

lish an effective advertising

"The fact is, consumers love online content," says Shelley Morrisette, director of quantitative research at

"To be effective, online

media companies and advertisers need to enhance and leverage this content to gain consumers' attention and trust." Simply asking for personal details in a registration form is not subtle

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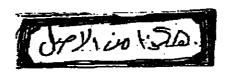
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### Online opportunity could prove to be 'a pot of gold'

Although the home has yet to become a networked zone, companies foresee lucrative prospects once the technology becomes cheap and widely available

The home is set to become the next target for networking technology. Research in the US predicts 35 per cent annual growth in the market for networking equipment for home use, and ecommunications suppliers are keen to exploit a potential

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bonanza in new services. Forrester Research estimates annual sales for equipment and services for home networks in excess of \$1bn by 2002. "The home is the only place where networks have yet to make an impact - but it is only a matter of time," says Hyeon Lee, general manager of Lucent Technologies' residential networks group.

The popularity of the internet together with the desire of suppli- the cost is below \$200 per PC and ers to bring services to the home failing. Early applications will be will help to push networking extensions of the PC - like shar-

technology into this new space," she contin

Certainly, home networking was high on the agenda of last month's Comdex conference in Las Vegas. A crowded session on the subject heard a succession of speakers from across the telecommunications and computer bidges tries talk of a science fiction future where the home would become an "intelligent" compo

nent in the global network Dan Sweeney, business unit manager at Intel's home networking operation, noted that lower prices and easier installation would push the technology forward. "You don't need any new wires, it is simple to install and

important elements such as standards and sufficient bandplace and prospective home users home network "infrastructure";

"You can extend the existing telephone line system, use wire. Echelon and intellon. less or even the AC power line

Todd Green of Intelegis, a com-pany specialising in using the Have emerged power line system for house net works, pointed out that there with multiple PCs and this is expected to rise to 35m by 2000. Cally 10 per cent of these are currently networked because the ditional networking technology is too expensive and too complete grouping cated to install. We are aiming to

lower the cost and make it easy to do," he said.

ing a printer or shared Internet PC and uses the domestic power supply as the network.

Today, it operates at 350 kilobits per second - but Mr Green width were quickly falling into claimed that his company would be able to deliver a two megabit had a range of choices for their per second version next year and atmed to push the speed up to 4 megabits by 2000. Other suppliers working in the same area include

### Two industry groupings

While the design of the US power system is such that it can be ased for home networking relatively easily, European homes are more likely to build their networks around telephone lines or wireless systems. Two industry groupings set up to promote the two technologies have emerged this year - the Home Phoneline Nativorking Altiance (HomePNA) Intelogis sells a kit for about for scientone-based systems and \$50 which plugs straight into a HemeRF Working Group

to create network connection standards to enable a wide range of devices to plug into a home network. HomePNA members include IBM, AT&T, Compaq,

Hewlett Packard and Intel. HRFWG members include Intel, Sony and Matsushita. A draft specification for the Shared Wireless Access Protocol (SWAP) standard is due to be published by the end of 1998; the first devices to use the standard are expected in the second half of

technology, all of those involved share a single vision - a home network that knits together the proliferation of digital devices low common in every home. This could mean, for example, that an individual could relephone home and turn on the central heating system or the oven. At a more mundane level, early applications are expected to

Regardless of the underlying

Internet from two PCs on one door to a range of applications telephone line.

#### Lucent's 'residential gateway

Ms Lee of Lucent, for example, says her group is working on an experimental system to provide a "residential gateway" to the telecommunications system. "Lucent has a number of pro-

jects under way - including a thip set for the HomePNA standard and a wiring system for new homes," said Ms Lee.

"My group is looking at a gateway product to enable home users to plug into a cable modem or an ADSL line for high-speed access to the internet."

Asymmetrical digital subscriber loop (ADSL), which uses existing copper wiring, and cable both offer the greater bandwidth needed for the expected increase include shared printing and stor- in network traffic to the home.

(HRFWG) for wireless. Both aim age or simultaneous access to the Ms Lee says this opens the rity to entertainment and combined voice and data communications. More importantly, it offers opportunities for telecommunications suppliers to create new services for residential users.

"The home network is a pot of gold sitting below the surface for suppliers," she adds, "They are racing to bring more bandwidth to the home - through technologies like cable or ADSL. This is essential for delivering services that people will want to use.

If you draw a parallel with the water system, for example, no one would think of installing plumbing to get a few drops of water to the tap.

"But if you can provide it on demand in large quantities, then it starts to make sense. The same goes for home networking."

The digital world and the battle

SOFTWARE SUPPLIER PROFILE: COREL by Geoffrey Wheelwright

### Vigorous defence for controversial WordPerfect purchase

Mike Cowpland, head of Corel, says consolidation will significantly reduce research and development costs

A lot of people have told not been easy champisning version of its new office Mike Cowpland that he both WordPerfect and Cor suite, WordPerfect Office made a mistake two years ago when he negotiated a deal for his Ottawa-based Corel Corporation to buy the troubled WordPerfect suite of word-processing and office productivity applications from Novell, the network

WordPerfect had for some time been losing market share to Microsoft Office. while Corel's own CorelDraw graphics software application was one of the few mainstream software products not to run into competition with Microsoft.

Industry observers speculated publicly about whether Corel's chief executive was wise to enter into direct competition with Microsoft by buying WordPerfect, and whether it would suffer as a

Two years later, Dr Cow-

elDraw. But he steadfastly insists that the WordPerfect acquisition was not a mistake, despite the fact that Corel has been on a financial rollercoaster ride for the

In late September, Corel reported fiscal 1998 third quarter results for the period ended August 31 that seemed to bolster Dr Cowpland's claims. Revenues for the third quarter of 1998 were \$71.1m. up 46 per cent from \$48.8m from the same period in 1997, and up 13 per cent from revenues of \$83m for the second quarter of fiscal

#### Corel's Comdex announcement .

Last month, at Comdex, the IT industry event in Las pland will admit that it has Yegas, Corel unveiled a betti costs of WordPerfect develment from Corel's Utah

2060. The product will include WardPerfect 9, plus a powerful spreadsheet and personal information man-

ager system. Corel's announcement followed the unveiling by Microsoft of its Office 2000 suite. Despite the anticipathe upcoming version of Word Perfect Office2000, Corel is still losing money And its share price had declined from more than \$4 to less than \$2 in mid-Octo-

Still, there are some signs of progress. Net loss for the third quarter of fiscal 1998 was \$7.8m, or 13 cents a share, compared with a net less of \$8.3m. or 14 cents a share, for the second quarter of 1998. Part of the loss can be attributed to moves taken

Corel recorded a non-recurring restructuring charge



### **Productivity** software:

of \$15.9m, attributable to the consolidation plan, a key element of which was the transby Dr Cowpland to stem the fer of research and develop-

the company's Canadian ties in Ottawa. The company says that this consolidation will contribute to a significant reduction in future research and development expenses and claims that

future product releases will remain on schedule. "We feel this is our real turnround quarter," says Dr Cowpland, "These results of applications," he adds. show that the steps we have taken during the past three

quarters are working. the company to profitability by our fiscal year-end. We believe that our results will continue to improve and are consequently targeting sus-

tainable profitability beginning in the fourth quarter of fiscal 1998." He rejects the notion that he should have any regrets

about buying WordPerfect. "Although with WordPerfect we have made a few mistakes here and there, it has definitely not been a ing that the recent consoli-

coment and consolidate it at engineering centre to facili- dation of research and development efforts in Ottawa WordPerfect situation,

#### Increasing market share

"We now positioned to compete in a broad spectrum He also disputes statistics that suggest WordPerfect is losing the battle for market We anticipate to return share in the office suites sec-

> "We are seeing good resiliency in terms of maintaining and increasing market share and we are settling into a stride where we can co-exist and provide a good alternative to Microsoft." says Dr Cowpland. "We are a good number two with full data compatibility with Microsoft Office and that extra graphics sizzle that Corel is known for [in the current version of WordPer-

fect]." He admits, however, that

tor.

it is difficult to ride both the CorelDraw and WordPerfect horses at once. "It is a management challenge having two flagships to run, and we are pleased that we are now moving to consolidate into one operation," he adds.

"Before now, it has been difficult to get as much produced as we had hoped. And we will see huge savings as much as \$10m a quarter. We needed to make sure that the WordPerfect technology Dr Cowpland, head of would move forward in a Ottawa-based Coret We can seamless way to keep our co-exist with Microsoft' loval users.

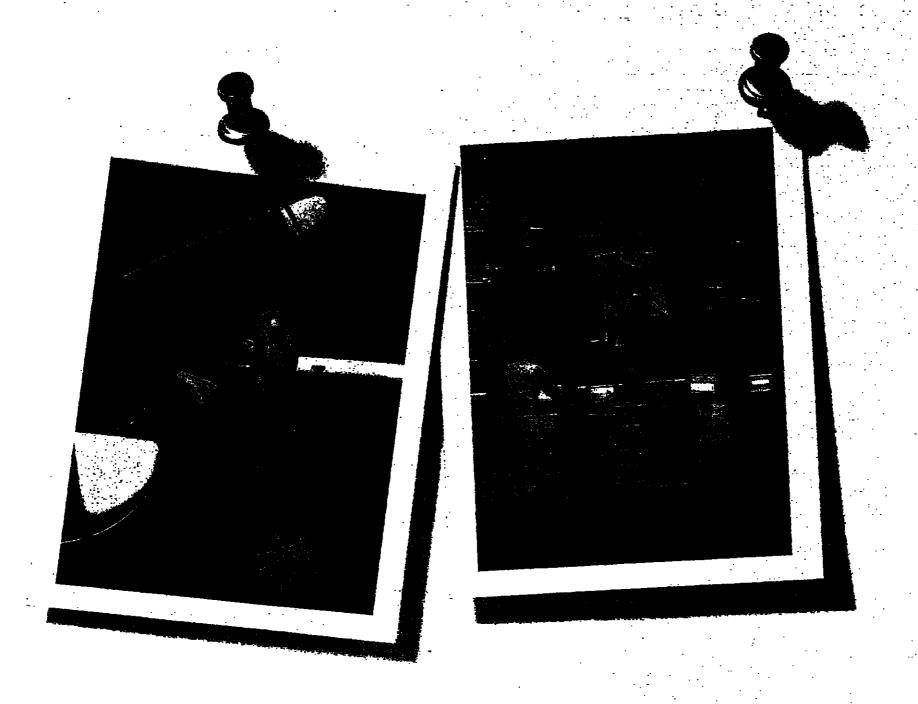
lot of Internet-related opportunities for Corel. Earlier that users should be able to this year the company launched a new hardware division known as Corel Computer, it sells "Internet and intranet appliances" that run the Linux operating system. The most recent of these is the NetWinder WS, a World Wide Web server that uses the StrongARM RISC processor, comes with net worlds, and a Linux ver-



Dr Cowpland also sees a hard drive and sells for \$969. Corel Computer promises use this server to quickly set up and begin hosting World

Wide Web pages. Other Internet and intranet-related projects include Corel's jBridge software. ents" corporate networks and the Internet and intra-32Mb of Ram. a 3.2 Gigabyte sion of WordPerect.





### "As part of Lucent Technologies, I'm helping to take communications in Europe to new heights."

JAN NEUTEBOOM. Manager. Software Development

I love the feeling of freedom when I fly. It's like the freedom I have at Lucent Technologies to find a better communications solution.

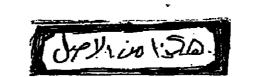
That's how my team of high-flyers developed a countrywide networked messaging system to service all the Netherlands. And it's why Lucent solutions - from voice and data networking to internet call center applications and wireless - are transforming communications throughout Europe.

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We make the things that make communications work."



Despite falling prices of both PCs and Internet-ready games machines, they are still aimed at different audiences

consoles continue to achieve huge sales. Sony's Playsta- the important issue it once tion has sold 43m units since 1994, with the price having fallen by two-thirds.

machines, built around PC software than the hardchip technology, and its lat- ware." est financial results show The battle for the games just how successful it has console market is being est financial results show

Computer games generate \$5.4bn of the corporation's \$51bn turnover. And games are tremendously profitable, with 22 per cent of Sony's profits now coming from this business. Playstations sell in phenomenal numbers because Sony knows who the game players are and delivers what they want. For what they want is usually deceptively simple.

Similar principles are applied by Sony's two direct competitors, Sega and Nintendo. Games console customers have acquired a down-market image

playing violent games in ment labs of the hundreds of their bedrooms are still a major part of the customer base, older and more afflu- hardware sales. Since 1994, ent games players are emerging. Sony says the written to run on the Playsaverage Playstation owner is tation. now aged 21.

Ray Maguire, Sony's UK managing director, says they industry. "We are definitely now sell to a generation in the entertainment busiwhich has grown up with ness. So our competitors games consoles. "People aran't just the other games started with the early companies. We compete for machines around 1992 and have remained loyal to games. They've made the transition to new products the average age of our cus-

Dedicated computer games dominance, but Mr Magnire thinks that hardware is not

"It's true that the quality of the hardware can always Sony blazed the trail for be improved, but people are these advanced gaming now more interested in the



Focus on the computer games market

But while teenagers fought out in the developgames software houses that manufacturers use to attract some 2,700 games have been

> Mr Maguire does not see Sony as being in the IT the customer's money with the cinema and other leisure activities."

Dick Francis, UK manag-Sega's new machine, the changed. The video games Dreamcast, is waiting in the market has been around for wings to challenge Sony's 10 years or more. It used to

Launched in March 1997, the N64 has followed Sony with a rapid decline in price. And the games addicts have grown up. "We now sell to a much older group of players, 25 and 30 year olds," says Mr

Nintendo sold 700,000 machines in the UK in 1997 and expects to shift a similar number in 1998. Market ble or desktop PC? growth appears when software sales, the games that provoke hardware sales, are studied in 1997 1.5m games were sold for the N64 in Britain, but this year that figure should rise to more

Nintendo also sells the smaller Gameboy machine. Over the last decade, 85m of these have been sold worldwide, and although a visibly different product from the larger games consoles, it still nts for spending in the youth leisure market, potentially undermining the attraction of other machines.

The shift in consumer emphasis from hardware platforms to the games that run on them is a huge factor in Sega's planning for the

This is its next generation machine. Dreamcast carries with it Sega's hopes of returning to the games console fray and undermining Sony and Nintendo, which have eclipsed it in recent Dreamcast was scheduled

to be launched in Japan late last month with a European and US debut in late 1999. half its revenues flowing and that has helped to raise ing director of Mintendo, from computer games on confirms that the market for consoles and in gaming the N64 console has arcades and thinks Dreamcast can take the market by

But its success will depend

be a fight between Sega and on the more than 300 games Sony for the attention of software houses which have games addicts aged between been commissioned to devise eight and 15 playing in their games to appeal to various Dreamcast will boast a

graphics capability three times that of a PC powered by a Pentium II processor with a built-in modem that provides access to email, the internet and online gaming

So does that mean the games console is positioning itself to challenge the porta-Packard Bell NEC sells

PCs optimised for graphics, and hence attractive to game enthusiasts. Sander Siezen, the company's UK product marketing coordinate says 44 per cent of home oputers are used primar-

ily for games. Packard Bell's customers tend to buy a PC for educational or personal finance purposes and then find games the prime attrac-

But even with PC prices GT Interactive underlines does not anticipate coming huge business, the PC and

es players try out their keyboard skills at 'aboot 'n surf' in London's Oxford Street. Most screen games addicts are young

games for the Playstation, years N64 and the PC. "There is a real divide

into direct competition with the games console remain expensive market for the the software house time to Sony. The games console far apart GT interactive is a consumer and the specifica-will remain the one comput- Nasdaq-listed games company with 1.400 employees. whereas the console technoldedicated to producing ogy stays stable for a few

As a game can take two years to develop, this means between consoles and the that if Sony keeps the Playsfalling sharply, Packard Bell the message that in this PC," says a spokesman. "The tation design stable for six matter how cheap the latest personal computer is a more or more years, that allows

write several successful

With 20 per cent of Playstation owners in the UK also the low price of consoles continues to keep them distant from the PC sector, no

STOCK MARKET SIMULATION GAME

### Big time deals for would-be traders

Wall Street Trader 99 from the French software house Monte Cristo, ellows fast-paced world of International finance, using 70 recognised stocks and 16 economic indicators.

The game's storytine is that the global market is crumbling. As billions the earth, nations stand on the brink of ruin. Lord Fleming, an eminent but afirmy financial wizard, is counting on you, the player, to stabilise the

Using clear and concise graphics CD-Rom game has been nominated for Europets, a prize created by the

European Commission to recognise

ing device with its process-

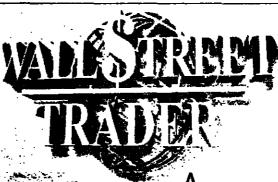
ing power focused squarely

on the products of software

houses that understand the

gaming enthusiast.

Innovative multimedia products. To spice up this adult business Cristo has added 35 minutes of price-sensitive video, web site are radio news clips to help wheeler-dealer players make their financial decisions. Players can consult share-orice craphs in



Financial Drive and the Wall Street Terminal Unexpected news 'events' in the came include a Mobil takeover, oil solits, scaring inflation and ent fictures, crises in Asia

Hussein entening peace talks in the Microtic East. Most financial orders are made by dragging and dropping items on the dealer screen. The storvine includes insider dealing and soving on rivals, providing you yeth multiple

Wall Street Trader 99, the braincid capacity, enabling you to play against lour players in real time. Despite the stock market game's authentic appeal, some players find the game's 30-page manua

scenarios and ruthless enemie

somewhat difficult to follow ☐ System requirements: Pentiur 75, 16Mb Ram, 30Mb hard disk scace, quad-speed CD-Rom drive: SVGA graphics card (1Mb): Soundblaster or 100 per cent

98/NT4.0 (service pack 3). More details from Pinnacke Software in the UK on 01322 665 652 or via the web site:

Michael Wiltshire

**GAMES SOFTWARE** by Michael Dempsey

### Developers seek a far wider audience

Finding a new family-friendly market for non-violent computer games is the main challenge for games producers

Dreamcast games console in the start of the next century. produce. Europe and the US next year, users will be able to industry of commercial softenter the world of Red Dog.

British software house, to Thames Valley to the west of devise this game involving London. the violent adventures of an armoured vehicle: Jez San, software for Dreamcast.

games software industry. Programmers are frantically devising the games that will

Unlike the conventional ware, games software houses Sega turned to Argonaut, a are not clustered around the

Computer games writers are scattered throughout the Argonaut's founder and country in small but highly managing director, claims profitable organisations that his company is the first to be work at an intense pace in a commissioned to develop highly competitive industry. Secrecy is a common charac-UK companies have an teristic, with companies extremely reluctant to reveal details of their next big prod-

At its north London base,

When Sega launches its new occupy computer screens at months and two years to aimed at a market of young

Mr San's own career illustrates why the UK is a fertile ground for these activities. He founded Argonaut as a schoolboy, following his first experience at programming at the age of 12, then the proud owner of a simple Tandy computer.

It was the enthusiasm of the British for the first wave of home computers, such as Clive Sinclair's ZX81 and the affluent buvers. BBC Micro from Acom that sowed the seeds of the there will be no games software industry.

"You could say that the computer games culture started in the UK with the Acorn and Sinclair machines," explains Mr San, 20 years on. These machines did not come with a games package. But they did allow users to write their own

basic programs. The challenge of devising computer games and the ability to create them on cheap and simple products inspired Mr San's generation. Today his company is staffed with programmers who are motivated as much by personal enthusiasm as business drive. "The people who work here are typical games players," he says. One of Argonaut's success stories is Croc. a game chart-

Argonaut's 10 teams of pro- crocodile with human char- other countries." grammers generate 25m acteristics. This goes against The marketing muscle of 1979. Machines like this were (\$8.3m) of business a year. the familiar trend of Sony, the games console the foundation of the game Rach game takes between 18 extremely violent games giant, helps the survival of industry and created a band-

Mr San is convinced the games industry could do more to break out of this lucrative but narrow market

"The industry is not trying

If games find a market of more shortage of new

hard enough to get away from violent games. It's true that the market is 90 per cent young men, but not much effort goes into expanding that market," he

says. "We learnt a lot from games console maker Nin-tendo, which specialises in targeting a family audience." "The weather is in my favour," says Mr San. "This isn't the west coast of the US, where you can surf in your hunchtime. We British favour a lot of indoor activities and there are far more

games industry than in

companies like Argonaut. through shrewd moves like such trendy London dance clubs as the Ministry of Sound.

to club culture and contemporary music made it hip to

play games." he adds. While the rise of new musical trends helped computer games retain a fresh flavour, the association between games and blockbuster movies has kept up the mass attraction of the software that sells machines such as the Playstation.

California, Argonaut's for he recalls. tunes reflect the activities of produced a game linked to can't throw more and more people at the production process," says Mr San.

Another person who became hooked by the computer games industry is Peter Molyneux. After selling his first UK games company, Bullfrog, for more ing this competition for new than \$40m he went back into business with Lionhead in 1997 and is now developing software for Sega's Dreammagazines dedicated to the

"I had an Acorn Atom and their homes.

wagon to lean on."

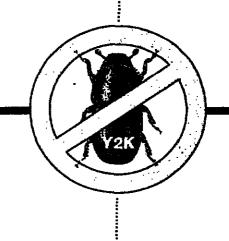
Mr Molyneux agrees that putting Playstations into the games industry needs to move on from its core customer base of young males. "The industry is trying to "Linking the Playstation create a mass market in terms of age ranges and areas of the population," he

The trail blazed by Sony's Playstation is promoting all games beyond the traditional market, leaving the likes of Molyneux in awe of the Sony marketing machine. "Last year, I went skiing in Val d'Isère. Every ski slope had a billboard Though based far from advertising the Playstation,"

If games do find a market Hollywood studios. It has of more affluent consumers,there should be no shortthe Alien series. "But we age of new themes. Eidos, can't produce a game as the UK games software quickly as Hollywood can house, sold am copies of the make a film because we Tomb Raider series, generating £137m and inspiring more ambitious young pro-

> The Scottish Games Alliance, sponsored Games nomic development agency Scottish Enterprise, launchgames in March. It received 600 entries from amateur games enthusiasts who are keeping alive the British love of game-writing from

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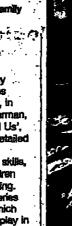
Tivole's electronic version of five classic games for all the family

### Tivola's new interactive games in three languages

Tivola Verlag, the award-winning Barlin-based multimedia publisher which has licensed its CD-Rom series for children in 15 countries, is launching its "Great Games Compendium" and other new titles in Britain. Through original animation

and illustration, Tivola produces a wide range of CD-Roms and interactive "play stories", intended for children and adult players. The interactive Games Compendium (UK price: £12,99), is intended for players "as young as four to

102", says the company . which produces a series called 'Play and Learn'. In English, French and German, and 'The World Around Us', for younger children. Detailed water-colour pictures encourage observation skills, as well as helping children with counting and reading. Players of the "Max" series (£19.99) can choose which language they want to play in at the beginning of the game. For more information, contact Thola on +44 (0)181 741 8011, or e-mail:





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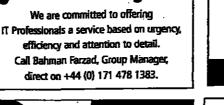
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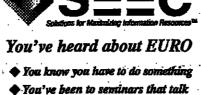
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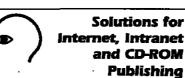


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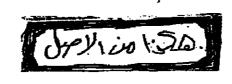
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### Bullet-proof approach to complex projects

After the success of an international software venture, the Manila government is hoping other projects will follow and help the country develop its IT profile

The iT industry is plagued by projects that run out of international IT consulcontrol, breaking budgets and deadlines. The entire computer sector is being held responsible for the looming threat of the millen-

Technology consistently fails to match the promises that are made for it. So when a respected consultancy makes the bold claim to have left these handicaps behind, it is worth investiga-

The claim is all the more unusual for being made in a 15th floor conference room boasting panoramic views of the Manila Bay area.



CASE STUDY: James Martin & Co.

James Martin & Co. an move from starting the proj-

tancy, has put \$5m and some 200 local staff into a Global Development Centre based in the Philippines. The centre's executive director. Vivian Miners, says it will handle IT projects in a way that makes them "bullet-Marife Zamora, the GDC's

managing director and a veteran of 18 years with IBM in the region, believes that the people JM & Co has recruited to develop software in Manila are "even better" than her erstwhile colleagues at IBM. But how cari either of them prove the bold

ses made for the GDC? Each PC at the GDC has \$30,000 worth of software tools loaded on to it. But investment in computer programs alone cannot account for the confidence that JM & Co displays in chasing diffi-

Bullet-proofing software projects is outlined thus by Mr Miners: "We test and replay the tests. We only pass an application as OK if parallel tests confirm that it will work." Small teams of programmers address different aspects of the problem.

Pulling Octopus, the world's largest contactless the brink in Hong Kong provided JM & Co with a huge

followed swiftly. the Philippine government that used the principle of reusable chunks of code and

The Social Security Sys- are being renewed online tem was a \$1.1m project for well within the five-day tarrigorous prototyping to



### Software development: focus on the Philippines

ect to deploying the system inside three months. The issue at the core of the project is the Philippine system of social security clearance, providing a busi-ness permit to employers and the self-employed. The to 1,600 municipalities scattered across the islands of the Philippines. JM & Co integrated point

of service terminals, familiar from the retail world. An Oracle database holds the central store of data. coup in the Asia-Pacific implementation, a permit cal significance of IT for

Already, business permits get period, and often within

Networks are the basisof James Martin's philosophy of the Cybercorp. This is his vision of the flexible commercial operation that can adapt and thrive in a volatile

The theory of the GDC is that it will take over the reins from JM & Co operations in other regions as time zones send one set of programmers home for the

This proved critical for the Octobus time-frame. "The cycle could start in Europe, move to North America as the day ends and on to the GDC," says Ms Zamora. The Manila office saw rev-

enues grow by 62 per cent to \$30m in 1997. Since 1993, the Manila operation has won software development pro-The Philippine govern-

ment has clearly bent over backwards to assist the GDC, offering what Patrick Litre, regional director, describes as "real, focused belp to develop a business". This has involved mouthwatering tax breaks, with JM & Co enjoying what is

effectively an eight-year tax holiday. But the presence of Department of Science and Technology Secretary Dr William Padolina, chairman of the Philippines National FT Council, at the GDC Prior to the system's launch underlines the politi-



gure status, Mr Martin still encys writing and lecturing and "thinking about our work"

computing as complemen-

tary to the efforts of develop-

ing economies to attract

high-tech investment and

the possibilities for an IT zone in the Philippines," Dr Padolina said, clearly hoping that the GDC would spur other companies to recruit

His department already held talks with SAP, the German software giant, on a potential expansion of

pines stand to benefit from the irrelevance of geographiits interests in the Philip-"It has always been the position of the department that IT literacy is the Philippines' best chance of being

> In line with this aim, a Philippine government Interproject, RP Web, should link all state offices by 2000. Dr Padolina notes that the Philippines is turning out 15,000 new IT graduates every year. When conversation turns to Malaysia's much-vaunted Cyberjaya, the multimedia corridor planned for the outskirts of

competitive in the world

market," says the minister.

Kuala Lumpur, he is quick They are using our people

Manila. "We are exploring pines. Dr Padolina regards declares. "Steven Spielberg the network-centred view of programmers working on graphics and animation at his studios. IT has become a source of national pride in Asia, and the Philippines feels it is time to claim

If networking and use of the Internet continue to grow, nations like the Philip-The fact that JM & Co staff come to Manila from the UK for training proves that the vision of an international, networked software house indifferent to geo-graphical location is a real-

> Visiting the GDC still means negotiating Manila's formidable traffic convestion. And the view from the 15th floor of the office block in the capital's Makati City business district reveals a chaotic and sprawling city.

Perhaps the location suggests that JM & Co is not rescuing the Octopus card. And Mr Miners notes that the site of the GDC embraces the ancient oriental view of space and energy now enjoying vogue in the West and known as feng shui. The for the Cyberjaya," he offices "face a lucky star".

INTERVIEW: James Martin, entrepreneur and IT guru

### Getting to grips with Octopus

As the deadline for Hong Kong's handover neared, speed was vital for a smartcard project

Time was running out when a team from James Martin & Co, the IT consultancy, evaluated the case for taking on a new contract. The potential business had come Michael Demosey.

a new coshless and contactiess payment and ticketing system based on smartcards bearing computer chips two years previously. Radio transmitters would

subtract value from the card from a distance of up to 10 centimetres so that rush-hour commuters would not need to wallet or bag.

. Sony designed the card with a communications

component on the chip that exchanges information with embedded in the station

The project and the cards became known as Octopus. The first software contractor withdrawn and, with the politically charged deadline of July, 1997, for the handover

of Hong Kong to Beijing, the transport companies had to ecommission the project. Creative Star, the consortium of Hong Kong

transport companies and ERG, an Australian electronics group specialising in fare committed to Octopus, The hardware for ticket gates had Continued on next page



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### Success story leaves just one regret

Mention of the year 2000 problem provokes an emotional reaction from the man who has written more than 100

books on IT, reports Michael Dempsey James Martin is one of the corp as the latest volume in

IT industry's personal success stories. Nineteen years with IBM, we incarnations running tives are less likely to be irri-

his own companies and the publication of 101 books on technology-related issues have left him with a worldwide reputation and a personal fortune reputed to be in the region of \$100m.

His views on the way computer technology should be harnessed have always been strong. As the brains behind the IT philosophy of Computer Aided Software Engineering (Case), Mr Martin reminded the IT community about the need to apply methodologies and structures to a business that has since become notorious for breaking deadlines and running over cost.

His first company, James Martin Associates, was founded in 1982 and sold with the rights for the Information Engineering Facility. a Case software toolbox, to Texas Instruments for \$30m

Earning the title of "the father of Case" has also won Mr Martin plenty of critics. who resent what they see as commandments on how to conduct their business. For his part, he speaks of "amazing resistance to change" in parts of the IT community.

But Mr Martin's success as an author and on the lecture circuit commanding fees of \$30,000 a day has been matched by the achievements of his companies. JM & Co was founded on April 9, 1991, immediately after the sale of JMA.

His latest title, Cybercorp, is a typical Mr Martin product wholly emphatic in its demand that success and survival in the next century demand constant agility in shifting business models to suit an online society,

### Call to arms

Yet Cybercorp is not just another call to arms in the Internet age. Speaking at the launch of JM & Co's Global Development Centre in Manila, he cheerfully admits that the Internet "is fairly slow and crude today".

Cybercorp makes the point that training and assistance are still required to prepare users for an immature technology, "without help potential users often become net-

Given his prolific writing,

a continuous output. But Mr the role of his latest venture. Martin has spotted a shift in the attitude of senior executives. Today, chief execu-

tated by an outsider telling them how to reorganise their Value streams' company. "My theory of the Cybercorp would have really put a CEO's back up five "But now they see a huge tidal wave of electronic com-

merce coming. They know that if the competition "value stream". ments change and they don't, they'll be in trouble." He finds that his seminars are attracting far more intensive questioning as the year 2000 approaches and the centrates the minds of chief

cance of IT within their Mention of the millennium bug provokes an instant and emotional reaction from Mr Martin. "This is a problem that was caused by incompetence," he says.

executives on the signifi-

Outside the IT industry few people would disagree, although the implication of Mr Martin's view on the year 2000 is that if his approach of software engineering and structured data modelling had enjoyed wider acceptance, the millennium bug

### Passionate views

Mr Martin is clearly driven by a passion for the better management of business. When pushed on why JM & Co is positioned to redesign companies, his reply is exasperated and clearly comes

"Everywhere I go. I feel overwhelmed by the obsolete nature of most corporations," he says. JM & Co now employs 700

staff worldwide, turns over \$100m and has engaged in high profile and extremely challenging tasks such as designing the software infrastructure for Hong Kong's contactless smartcard system. Octobus.

But Mr Martin insists that JM & Co is not about to grow beyond its limits. "We could hire thousands of programmers, but that's not what we need." he says.

"To make this company succeed, we need executives who are businessmen. The

The software rescue mission that was entailed in the Octopus project suggests that the JM & Co organisation is positioning itself as is not how Mr Martin sees

term 'fire brigade'," he says.
"'Mission critical' is more

As befits the author of so many management publications, Mr Martin has given rise to catchphrases and his own jargon. One of the terms he remains most fond of is

This is the idea that the IT contractor must maintain a clear identity with the purpose of the project as differ-ent technology elements evolve. And it gives an identity to Mr Martin's business. "If we were just about

writing software, we would face a lot of direct competition. But very few other contractors have a clear idea of the value stream in business. Whatever you chose to call any corporation, it is a collection of value streams."

businesses will have to recognise their best value stream, even if this means bowing out of other activities. "What we have identified here bas implications in terms of management upheavals. We are moving into a global economy where the winner takes most," he

Clearly, there can't be a winner at everything, so businesses that learn to specialise will become very good at understanding their value stream."

Lack of ambition is not a problem for Mr Martin. He forecasts that JM & Co will grow tenfold to become a \$1bn business. Now 65, he intends to be working for the company when it hits that landmark figure.

"I've no plans to retire. I enjoy writing and lecturing and thinking about our

In September, he became chairman emeritus of JM & Co. relinquishing day-to-day control of the business but maintaining a strong personal and financial influence with a travel schedule to match. But he does look back on his career with one regret: "I should have left IBM 10 years earlier than I

He is now involved in plans for an Oxford Universupply of programmers is sity Business School, worknot our limiting factor, the ing with the vice-chancellor supply of high-level execu- of the university he left with

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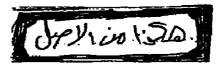


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THE DIGITAL HOME by Paul Taylor

### 'Battle for the eyeballs' hots up

More than ever before, intelligence is being embedded in consumer electronic equipment and household white goods

largest chipmaker launched are running at around 85m the Pentium MMX microprocessor a few years ago Andy Grove, Intel's former chief executive, described the ensuing battle for the home market as "the battle for the

This has proved a fitting description as global sales of ever more powerful home personal computers have overtaken those of television

The arrival of high power 3-D graphics cards, DVD (Digital Versatile Disc) drives and multimedia software has also pitched the PC into a direct battle with es consoles and other ertainment devices.

The console market conues to grow, reflecting mainly the success of Sony's PlayStation machine, but the personal computer is now accepted as a viable games platform in its own right and a worthy rival for the dedicated machines built by Nintendo. Sega and Sony.

While the cheapest personal computers still cost four or five times the price

An entry level home PC costing less than \$1,000 from a leading manufacturer Now has the processina power of a 1970s

of video games consoles and are more difficult to use, the widespread deployment of CD Rom drives within PCs has helped to fuel a surge in PC-based video games.

mainframe

Rapid advances in both computing power and Today's three-dimensional three-dimensional graphics flight simulator and racing capabilities have turned the general purpose personal despite the insistence of es aficionados that conles are still best.

This reputation has been nanced by the success of PC games such as Doom and Tomb Raider, the hugely successful adventure game starring a well-endowed female character called Lara

Indeed, the huge installed base of personal computers - there are an estimated 250m personal computers in

A & Co's Manile operation

if the work that had been

heare designs, but they

The recycling of computer

code is key to the JM & Co

way of working. Work on finance contracts for Jardine

offwere that could be stotted

The world of object-oriented

Group provided bricks of

into a transport project.

software, where code is

written to relate to specific

objects in the real world so it

can be re-applied when those

objects are invoked in another

program, was the key to this

become used to working like

this," says Mr Miners. "They

like to plug and play with

switch between hardwere

ob. "In JM & Co, people have

software the way some people

"We re applied about 60 per

cent of the software from our

library of other projects. This

has given us an assembly line

eroven code, employing isable objects. Around 40

e cent of the software was

manager on Octopus, explains

Paul Smith, ERG general

tten as new."

that as Hong Kong

commuters load up the

Octopus card from metro

int been done to a method tould re-use," says VMan iners, executive director of

ded to abandon aspects

ok up the challenge, it

"We did look at the

the company's Global

Development Centre in

OCTOPUS IN HONG KONG

Ahead of schedule

When Intel, the world's the world and annual sales means that the PC has become an attractive option for games developers and

> At the same time the astonishing growth of the Internet, the web and online market has turned the home or small office PC into a vital communications tool and, increasingly, a device for conducting electronic

The most recent research suggests that in households with both PCs and television sets young people in particular are spending more time on the net and using their PCs than watching televi-

Home PC buyers are also becoming more demanding. Toon Bouten, Compaq vice-president for consumer products in Europe, says today's PC purchasers want high-end machines at rock bottom prices.

Historically, corporate personal computer buyers bought the biggest and fastest machines. But over the past five years all that has changed. Spurred on by plunging PC prices and the power-hungry hardware requirements of multimedia games and digital imaging, home PC buyers now choose the latest and best machines.

Today, most home PC buyers will select a machine built around Intel's latest generation Celeron or Pentium II microprocessor running at 333MHz or faster, with a large 9GB hard drive, a 32x speed CD-Rom or DVD drive, a 56Kbps modern or and ISDN card and 64MB or 128Mb of Ram. Multimedia computing is

more demanding than traditional business computing because it takes millions of times more data to make audio and video come alive on the PC than it does to create business documents and financial tables, notes

Today's three-dimensional games use as much processing power as yesterday's computer into a solid games most advanced scientific machine and a worthy rival applications running on dedicated consoles exotic, multi-million-dollar

> Even an entry level home PC today costing less than \$1,000 from a leading manufacturer such as Compac Computer, Hewlett-Packard or Packard Bell now has the processing power of a 1970s corporate mainframe.

However, the recent rapid expansion of the sub-\$1,000 market in the US and now in Europe did catch Intel and some PC manufacturers off guard. Rival chip makers, cut-price microprocessors more than one before intel responded with

its Celeron processor. "As a result, PC buyers face the widest choice of microprocessors to power their machines than for many years. Some are also choosing to purchase Apple Computer's latest machine the iMac which, aside from a unique design, is intended to

Rase-of-use remains a key issue, particularly for operating system developers such Microsoft. Tomorrow's PCs are likely to be easier to use and more fun thanks to their greater processing power and technologies like voice activation, digital versatile discs and real-time rideo processing.

They should also be less frustrating for new users and be capable of self-healing - diagnosing their own problems and finding solutions. This, in turn, is expected to fuel a further expansion of the home PC market. home PCs grows some fami-

to grab a sizeable chunk of 40m homes with personal are powerful personal comthe home PC market with computers already have puters in their own right As a result Intel and

industry analysis are predicting a surge in home net-works - PCs hocked up such as printers, files and internet access.

Network equipment manufacturers such as Cisco. 3Com and others are already predicting a boom in home be particularly easy to set up and home office networks. While some of these will be hard wired using network cables, others will use existing power line or telephone cables or wireless links. These home networks are

likely to hook up a wide variety of devices including. digital set top boxes. The arrival of digital broadcast-ing and interactive services tions between a PC television as a communications and entertainment centre, particularly once digital settop boxes are equipped with high-bandwidth communications links.

For example, the set-top boxes produced for the launch of digital satellite and digital terrestrial broadlies will end up with several machines. In the US, 14m, or casting services in Britain just begun.

readers and modem connec

In this new digital world there may also be a place for hybrid PCTVs and so-called web-TVs as well as "smart" telephones and other gadgets and "thin client" machines designed to combine the features of a personal comand web-enabled communications device.

NCR, the US-based IT systems and data warehousing group, recently caught strating Microwave bank to illustrate the fact that banklikely to be delivered into the home using a wide variety of devices and communi-More than ever before.

intelligence is being embedded into consumer electronic equipment and household white goods, blurring the distinctions between personal computers and other machines and hastening the arrival of the digital networked home. The battle for our eyeballs may have only



in the US and Europe, home computers, desktop colour printers and colour scanners are bringing the magic of photography to amateurs of all ages. As the installed base of home PCs grows, some families will end up with several machines. In the US, 14m, or 35 per cent, of the country's 40m h with PCs already have more than one

# IMPOSSIBLE IS NOT A WORD IN THE

Using JM & Co as a manager for the software project, Mr Smith established set deadlines for practical achievements, adding functions to Octopus as they were proven by a vigorous testing regime. "We had to deliver," he

further slippage could not be

tolerated:

says. "As dates for each function - such as so many gates working with the smartcard - were met, the other sub-contractors were free to get on with their jobs In parallel with ERG and JM &

Octopus had to support six different transit operators using railways, metro lines, buses and ferries, making this the first smartcard fare system to be integrated across completely different methods of transport. It needed to perform 4m transactions in a six-hour period.

The Manila operation of JM & Co wrote the Octopus software, a team in Hong Kong installed it and a third independent team was responsible for verification. Sun Computers and Oracle were among 17 different. suppliers to be managed within the JM & Co cycle of development and testing.

The system was delivered three days ahead of schedule, on June 27, 1997, and had 1.5m users on the first day. Now, HK\$23m (US\$3m) passes through Octopus every day, with more than 8m cards in circulation.

Octopus cards can be used at public telephones and further applications of the core system are under test. Today, there are 10m Octopus cards in circulation in Hong

First, we realized the concept of "twoway multi-function" with the first digital copier that could copy and fax. Then we made "three-way multi-function" a

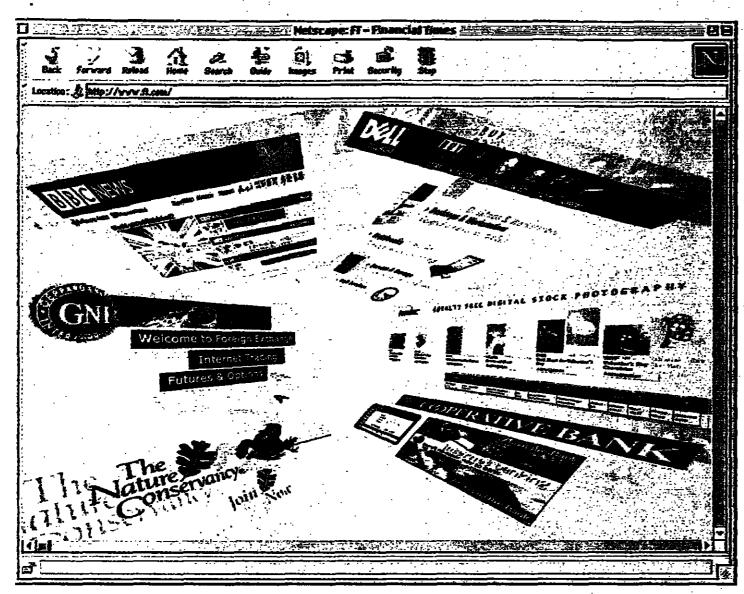
reality with the first digital copier that could copy, fax and print. Which explains why the term "impossible" means little to us.

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stations, they deposit a huge Thus the key to managing Octopus was to realise that the transport authority was effectively becoming a bank.



FT BUSINESS WEB SITES OF 1998 - in association with UUNET

### inning web sites

From a record number of entries, the category winners for the FT Business Web Site of the Year awards were announced in London this week

awards presentation for the competition to find the FT Business Web Site of 1998. Sue MacGregor, the BBC radio and television personality,

presented the awards. The competition, in its second Cellnet - http://www.genie.co.uk. MCI WorldCom company and leader in Internet communications solutions, in partnership with the FT. More than 120 companies entered the competition, a big rise from last

The competition differs from other web events by focussing on business benefits. Judges assess how organisations use their sites to achieve commercial advantage.

The judges were: from UUNET Richard Heyes, UK managing director, Denise Fellows, product and solutions director, Henry Ritson, web specialist and international marketing communications manager; from the Financial Times -Paul Maidment, editor of FT.com, and Paul Taylor, IT Correspondent.

The entries were divided into sectors ranging from large organisations to small enterprises and including the public sector. The judges again found it necessary to select more than one winner in some categories and more than one highly commended to reflect the high quality of entries.

They also introduced a new category, Sites to Watch, to recognise web sites which were especially innovative.

Winners and finalists in each category were as follows:

#### Large corporates ☐ Winner: Dell. Europe

http://www.dell.co.uk Dell's European web sites were among the first to be online business-enabled and now conduct over \$5m of sales per week.

Customers can review, configure and price systems within Dell's entire product line, order systems

Some of the world's top web sites online or by telephone, and track data on GNI's broking services in were honoured this week at the orders from manufacturing through global derivatives markets and to shipping. The site also offers personalised system-support pages and more than 45,000 technical service

distribute research.

The site has revolutionised GNI's

marketing. The demand for access to

GMI's research, and the number of

users downloading the FX Internet

FX prices fed to the user from major

global banks - has been extremely

http://www.co-operativebank.co.uk

The Co-operative Bank's online

banking service was designed by

Entranet. Available free to existing

and new customers, the Internet

banking service was used by more

than 12,000 customers in its first six

http://www.icicibank.com

service - was introduced.

□ Winner: Photodisc Europe

The first PhotoDisc site was a mar-

keting only presence. It was

images to a world-wide audience of

target customers, namely graphics and communications professionals.

The site allows customers to search

quickly and efficiently through over

60,000 images and purchase and

- http://www.ministryofsound.co.uk

This site claims now to be the

Small to Medium

http://www.photodisc.com

download those they need.

☐ Highly commended:

world's best club web site.

☐ Highly commended: Se

Ministry of Sound

Enterprises

weeks for 250,000 transactions from

☐ Highly commended: ICICI Bank

Back for the second year is the ICICI

Bank's web site. It was initially tar-geted at a well defined, but hard to

reach, segment of customers - non-

When Internet usage picked up in

India, the focus was expanded to include resident Indians. Early this

year, Infinity - the Internet Banking

☐ The Co-operative Bank:

20 countries.

resident Indians.

☐ Highly commended: year, is sponsored by UUNET, an Genie is a service unique to Cellnet which delivers tailored news and information direct to Cellnet digital phones or an e-mail address from the Genie web site.

It has four clear strategies: busiess - to stimulate more calls; marketing - to develop a direct relationship with the end customer: technical - to provide best practice functionality to mobile users; and creative - to create a web product

A series of case studies featuring these winning web sites will appear in the monthly FT-IT

Review next year

with leading edge design.

□ Highly commended: Eastman Kodak - http://www.kodak.com. This focusses on ways of making people excited about the power of pictures, while at the same time building the brand and strengthen-

ing market share. ☐ Highly commended: RS Components - http://www.rswww.com. This site provides seamless integration into existing order processing and same day despatch of 100,000 stock items.

Finance Sector

☐ Joint winners: GNI and the Co-operative Bank ☐ GNI: http://www.gni.co.uk
The site was established to provide serves the needs of the international maritime community by combining information provision, a trading area and a secure e-mail system.

- http://www.seanet.co.uk

Back for the second year, SeaNet

#### **Public Sector**

□ Winner: BBC News Online

http://www.news.bbc.co.uk BBC News Online was launched in November, 1997. It was created as part of a BBC-wide strategy that targets the web as the third broadcast medium and one that will expand Trading system - complete with live rapidly

☐ Righly commended: Foreign and Commonwealth Office

http://www.fco.gov.uk Since there are 220 diplomatic posts representing Britain across the world, this site has a global remit. The site provides up-to-date news for those abroad and allows instant access to the FCO's standpoint on foreign countries.

☐ Highly commended: The Army Recruiting Group - http:/ house army mod uklasmy recruit The British Army World Challenge a series of interactive scenarios lead ing to an online application facility was launched to complement the army's above the line campaign.

### Not for profit

☐ Winner: The Nature Conser vancy - http://www.tnc.org The basic goals for this site are: to raise awareness of the organisation; to use technology to create content that would raise funds for land acquisition programmes; and to create a central information resource about the organisation.

### Sites to watch

☐ Joint winners: Road Tech Comiter Systems and TIMBERWeb ☐ Road Tech Computer Systems: http://www.roadrunner.uk.com An estimated 35 per cent of all haulage on the road is empty. Roadrunner aims to fill up these empty vehicles through its web site. ☐ TIMBERWeb:

http://www.timberweb.co.uk TIMBERWeb is a focus for the world timber and forest products industries. Companies subscribe via business card entries which list vital company information.

### A fresh focus on IT in finance and e-commerce in 1999

Special features planned for next year's FT Review of Information Technology will highlight the rapid shift towards Internet-related business opportunities

is the key theme in the next issue of the FT-IT Review on January 6, 1999. This futuristic issue will examine the likely impact of IT in a wide range of business sectors in the next decade. From February onwards, the

The shape of things to come

review, which is published on the first Wednesday of each month, will carry regular features on: ☐ iT in finance, with a special

focus each month. □ Electronic busines ☐ The millennium date issue and euro compliance. If news update.

Each issue will include a main theme, with a cover story on a topic of key importance to IT users, plus views of leading suppliers in

the IT industry.

During the year, there will also be a series of mid-month reviews on business solutions highlighting enterprise resource planning, managed services and knowledge management systems.

### **February**

☐ Main theme: IT and the Customer, (Customer Relationship Management,

☐ Second theme: Green computing. □ Plus regular features Including: IT in finance focus on broking; electronic business; update on the millennium date issue; and the

race for euro compliance.

#### March

☐ This month the world's largest IT show takes place in Hannover, Germany, and our main theme will be: the IT Industry in transition. Second theme: IT and New

☐ Plus regular features including: IT In finance focus on the European Central Bank; electronic busine update on the millennium date ssue: and the race for euro

#### compliance. April

☐ Main theme: Electronic commerce and the wired ☐ Second theme: Java update. Plus regular features

including: IT in finance -focus on insurance; electronic business; update on the millennium date issue; and the race for euro compliance.

### May

Main theme: Mid-sized enterprises: selecting an IT

Second theme: Telecommunications ncreasing convergence in Information and

communication technologies

#### June

☐ Main theme: Windows what's at stake? Second theme: 11. in manufacturing (cad/cam). D Plus regular features including: IT in finance – an emphasis on personal finance; electronic business; update on the millennium date issue; and the race for euro compliance.

Monthly themes on IT in finance during 1999 will range from insurance and

investment banking to retail banking, venture capital, broking, and the European Central Bank

#### July

☐ Main thems: Internet Second theme: IT and the Law in the run-up to the year 2000.

□ Plus regular features including: IT In finance focus on retail banking: electronic business; update on the millennium date issue; and the race for euro compliance. ☐ There will be no issue of the review in August.

### September

☐ Main theme: IT in Retailing ☐ Second theme: Supply Chain Management. Plus regular features including: (T in finance focus on risk management; electronic business; update on the millennium date issue; and euro compliance.

### October

☐ Main theme: Continuity planning in the aftermath of the millennium "bomb". D Second theme: IT in Education, ☐ Pius regular features including: iT in finance —

electronic business; update on the millennium date issue; and the race for euro compliance.

#### November

☐ Main theme: Continuity Planning (II). ☐ Second theme: IT in Trave and Leisure. Plus regular features including: IT in finance focus on fund managemen e-business; the millennium date issue; and euro

#### December

Main thems: The Cybs ☐ Second theme: IT in the search for the stars.

### Special mid-month series on business

solutions During the year, we plan to include a series of special ☐ Business solutions:

Enterprise Resource Planning. ☐ Business solutions: Managed services and outsourcing - a \$55bn market. Business solutions: Knowledge Management.

### For more details

☐ During the year, our editorial fax-u-back service will give detailed synopses, two months in advance of each issue. Callers in the UK should dial 0990 209 903; fax machines should be in polling mode. Callers outside the UK should dial +44 990 209 903. For advertising information, ☐ in Landon:

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